



Public Service Commission of South Carolina Tariff Summary Sheet as of August 5, 2014

FTC Diversified Services, LLC

Tariff Service: Access

This document is the complete version of the tariff on file and contains the following approved revisions. Detailed information is available for each revision on the Commission's E Tariff website (<http://etariff.psc.sc.gov>).

Revision	Date Filed	Effective Date	# of Pages
E2014-208	7/28/14	8/5/14	2
Summary: Correction to the terminating end office local switching rate to comply with the directives of the Federal Communications Commission ("FCC") as set forth in WC Docket Nos. 10-90, 07-135, 05-337, 03-109, CC Docket Nos. 01-92, 96-45, GN Docket No. 09-51, WT Docket No. 10-208, FCC 11-161 (rel. Nov. 18, 2011) (USF/ICC Transformation Order).			
E2014-201	7/16/14	8/5/14	5
Summary: To comply with the directives of the Federal Communications Commission ("FCC") as set forth in WC Docket Nos. 10-90, 07-135, 05-337, 03-109, CC Docket Nos. 01-92, 96-45, GN Docket No. 09-51, WT Docket No. 10-208, Second Order on Reconsideration, FCC 12-47 (rel. Apr. 25, 2012) (USF/ICC Transformation Order) in regards to toll VoIP Traffic, and to revise the terminating local switching rate.			
E2014-141	6/19/14	7/1/14	5
Summary: To comply with the directives of the Federal Communications Commission ("FCC") as set forth in WC Docket Nos. 10-90, 07-135, 05-337, 03-109, CC Docket Nos. 01-92, 96-45, GN Docket No. 09-51, WT Docket No. 10-208, Second Order on Reconsideration, FCC 12-47 (rel. Apr. 25, 2012) (USF/ICC Transformation Order) in regards to toll VoIP Traffic, and to revise the terminating local switching rate.			
E2012-216	6/15/12	7/3/12	8
Summary: Docket No. 2012-136-C – Office of Regulatory Staff Petition to Review FCC Mandated Reductions to Intrastate Access Tariffs			
Language regarding Toll VoIP-PSTN pursuant to the FCC's Report and Order and Further Notice of Proposed Rulemaking in CC Docket Nos. 96-45 and 01-92; GN Docket No. 09-51; WC Docket Nos. 03-109, 05-337, 07-135 and 10-90; and WT Docket No. 10-208, adopted October 27, 2011 and released November 18, 2011 (FCC 11-161) – USF/ICC Transformation Order.			

ACCESS SERVICE

Rates, Terms and Conditions
applying to the provision of intrastate access
and point to point service within the State of South Carolina
by FTC Diversified Services, Inc.

All material contained herein is new.

Access Services are provided by means of wire, fiber optics, radio or any other suitable technology or a combination thereof.

ACCESS SERVICE

CHECK SHEET

The title page and pages 1 through 12-15 inclusive of this Tariff are effective as of the dates shown. Original and revised pages, as named below, comprise all changes from the original Tariff in effect on the date indicated.

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(N)

ACCESS SERVICE

CONCURRING CARRIERS

None

CONNECTING CARRIERS

None

OTHER PARTICIPATING CARRIERS

None

REGISTERED SERVICE MARKS

None

REGISTERED TRADEMARKS

FTC Diversified Services, Inc.

EXPLANATION OF SYMBOLS

The following symbols shall be used in this tariff for the purpose indicated below:

- (C) - To signify changed regulation
- (D) - To signify discontinued rate or regulation
- (I) - To signify increase
- (M) - To signify matter relocated without change
- (N) - To signify new rate or regulation
- (R) - To signify reduction
- (S) - To signify reissued matter
- (T) - To signify a change in text but no change in rate or regulation
- (Z) - To signify a correction

ACCESS SERVICE

APPLICATION OF TARIFF

This tariff sets forth the service offerings, rates, terms and conditions applicable to the furnishing of intrastate access and point to point service by FTC Diversified Services, Inc. (hereinafter "Company").

The provision of such services by the Telephone Company as set forth in this tariff does not constitute a joint undertaking with the customer for the furnishing of any service.

ACCESS SERVICE

1. DEFINITIONS

Defined below are certain terms that are used throughout this tariff in conjunction with access services provided by this Company.

Access Code: A seven-digit dialing sequence designated by 101XXXX or 950XXXX, where XXXX represents the uniform four-digit carrier identification code (CIC).

Access Minutes: For the purpose of calculating chargeable usage, the term "Access Minutes" denotes customer usage of exchange facilities in the provision of interstate or foreign service. On the originating end of an interstate or foreign call, usage is measured from the time the originating end user's call is delivered by the Telephone Company to and acknowledged as received by the customer's facilities connected with the originating exchange. On the terminating end of an interstate or foreign call, usage is measured from the time the call is received by the end user in the terminating exchange. Timing of usage at both originating and terminating ends of an interstate or foreign call shall terminate when the calling or called party disconnects, whichever event is recognized first in the originating and terminating exchanges, as applicable.

Access Service: Switched Access to the network of an Interexchange Carrier for the purpose of originating or terminating communications.

Access Service Request (ASR): The industry Service Order format used by Access Service customers and access providers, as agreed to by the Ordering and Billing Forum.

Access Tandem: An Exchange Carrier's switching system that provides a concentration and distribution function for originating and/or terminating traffic between local switching centers and customers' premises.

Advance Payment: Payment for all or part of a charge required before the start of service.

Alternate Access: Alternate Access has the same meaning as Local Access except that the provider of the service is an entity other than the Local Exchange Carrier authorized or permitted to provide such service. The charges for Alternate Access may be specified in a private agreement rather than in a published or special tariff if private agreements are permitted by applicable governmental rules.

Authorized User: A person, firm, corporation or other entity that is either authorized by the Customer to use Access Service or is placed in a position by the Customer, either through acts or omissions, to use Access Services.

Bit: The smallest unit of information in the binary system of notation.

Carrier or Common Carrier: see Interexchange Carrier or Exchange Carrier.

Channel(s): An electrical, or in the case of fiber optic-based transmission system, a photonic, communications path between two or more points of termination.

Common Channel Signaling (CCS): A high speed packet switched communications network which is separate (out of band) from the public packets switched and message networks. It is used to carry addressed signaling messages for individual trunk circuits and/or database related services between signaling points in the CCS network.

ACCESS SERVICE

1. **DEFINITIONS** (Cont'd)

Common Line: The term "Common Line" denotes a line, trunk, pay telephone line or other facility provided under the general and/or local exchange service tariffs of the Telephone Company, terminated on a central office switch. A common line-residence is a line or trunk provided under the residence regulations of the general and/or local exchange service tariffs. A common line-business is a line provided under the business regulations of the general and/or local exchange service tariffs.

Company: FTC Diversified Services, Inc., which is the issuer of this tariff.

Conventional Signaling: The inter-machine signaling system has been traditionally used in North America for the purpose of transmitting the called number's address digits from the originating Local Switching Center which terminates the call. In this system, all of the dialed digits are received by the originating switching machine, a path is selected, and the sequence of supervisory signals and outpulsed digits is initiated. No overlap outpulsing ten digit ANI, ANI information digits, or acknowledgment link are included in this signaling sequence.

Customer: The person, firm, corporation or other entity which orders Service and is responsible for the payment of charges and for compliance with the Company's tariff regulations.

Dedicated: A facility or equipment system or subsystem set aside for the sole use of a specific customer.

Duplex Service: Service which provides for simultaneous transmission in both directions.

800/888 Data Base Access Service: The term "800/888 Data Base Access Service" denotes a toll-free originating Trunkside Access Service where the 8XX service Access Code (i.e. 800, 822, 833, 844, 855, 866, 877 or 888 as available) is used. The term 8XX is used interchangeably with 800/888 Data Base Service throughout this tariff to describe this service.

End-user: Any individual, association, corporation, governmental agency or any other entity other than an Interexchange Carrier which subscribes to intrastate service provided by an Exchange Carrier.

Exchange Carrier: Any individual, partnership, association, joint-stock company, trust, governmental entity or corporation engaged in the provision of local exchange telephone service.

Fiber Optic Cable: A thin filament of glass with a protective outer coating through which a light beam carrying communications signals may be transmitted by means of multiple internal reflections to a receiver, which translates the message.

Firm Order Confirmation (FOC): Acknowledgment by the Company of receipt of an Access Service Request from the Customer, and commitment by the Company of a Service Date.

ACCESS SERVICE

1. DEFINITIONS (Cont'd)

Hub: The Company office where all customer facilities are terminated for purposes of interconnection to trunks and/or cross-connection to distant ends.

Individual Case Basis: A service arrangement in which the regulations, rates and charges are developed based on the specific circumstances of the Customer's situation.

Interexchange Carrier (IC) or Interexchange Common Carrier: Any individual, partnership, association, joint-stock company, trust governmental entity or corporation engaged in state or foreign communication for hire by wire or radio, between two or more exchanges.

Joint User: A person, firm or corporation designated by the Customer as a user of access facilities furnished to the Customer by the Company, and to whom a portion of the charges for such facilities are billed under a joint use arrangement.

Kbps: Kilobits, or thousands of Bits, per second.

LATA: A local access and transport area established pursuant to the Modification of Final Judgment entered by the United States District Court for the District of Columbia in Civil Action No. 82-0192 for the provision and administration of communications services.

Line Information Data Base (LIDB): The data base which contains billing information such as telephone numbers, calling card numbers and associated billed number restriction data used in connection with the validation and billing of calls.

Local Access: The connection between a customer's premises and a point of presence of the Exchange Carrier.

Local Switching Center: The switching center where telephone exchange service customer station Channels are terminated for purposes of interconnection to each other and to interoffice Trunks.

ACCESS SERVICE

1. **DEFINITIONS** (Cont'd)

Mbps: Megabits, or millions of bits, per second.

Meet Point Billing: The arrangement through which multiple Exchange Carriers involved in providing Access Services, divide the ordering, rating, and billing of such services on a proportional basis, so that each Exchange Carrier involved in providing a portion of the Access Service agrees to bill under its respective tariff.

Network: The Company's digital fiber optics-based network located in the Continental United States.

Network Services: The Company's telecommunications Access Services offered on the Company's network.

Non-Recurring Charges: The one-time initial charges for services or facilities, including, but not limited to charges for construction, installation, or specific fees, for which the Customer becomes liable at the time the Service Order is executed.

Off-Hook: The active condition of Switched Access or a telephone exchange service line.

On-Hook: The idle condition of Switched Access or a telephone exchange service line.

Out of Band Signaling: An exchange access signaling feature which allows customers to exchange call control and signaling information over a communications path which is separate from the message path.

Point of Presence: Location where the Customer maintains a facility for purposes of interconnecting to the Company's network.

Point to Point Service: An unswitched full time transmission service utilizing the Company's facilities to connect two or more Customer designated locations.

Premises: The space occupied by a Customer or Authorized User in a building or buildings or on contiguous property (except railroad rights-of-way, etc.).

Presubscription: An arrangement whereby an end user may select and designate to the Company an Interexchange Carrier (IXC) or Carriers it wishes to access by dialing 1+ or 0+, in order to complete interLATA calls. The selected IXC(s) is/are referred to as the end user's Primary Interexchange Carrier(s) (PICs). The end user may select any IXC that orders FGD Switched Access Service at the Local Switching Center that serves the end user.

Recurring Charges: The monthly charges to the Customer for services, facilities and equipment, which continue to be assessed for the agreed upon duration of the service.

ACCESS SERVICE

1. **DEFINITIONS** (Cont'd)

Service Commencement Date: For Direct Connect Switched Access Service, the first day following the date on which the Company notifies the Customer that the requested service or facility is available for use, unless extended by the Customer's refusal to accept service which does not conform to standards set forth in the Service Order or this tariff, in which case the Service Commencement Date is the date of the Customer's acceptance of service. The parties may mutually agree on a substitute Service Commencement Date. If the Company does not have an executed service Order from a Customer, the Service Commencement Date will be the first date on which the service or facility was used by the Customer. For Tandem Connect Customers, the Service Commencement Date will be the first date on which the service or facility was used by the Customer.

Service Order: The written request for network services executed by the Customer and the Company in a format devised by the Company; or, in the alternative, the submission of an Access Service Request by the Customer in the manner specified in this tariff. The signing of a Service Order to submission of an ASR by the Customer and acceptance thereof by the Company initiates the respective obligations of the parties as set forth therein and pursuant to this tariff, but the duration of the service is calculated from the Service Commencement Date.

Service(s): The Company's telecommunications Access Services offered on the Company's network.

Shared Facilities: A facility or equipment system or subsystem which can be used simultaneously by several customers.

Signaling Point of Interface: The customer designated location where the SS7 signaling information is exchanged between the Company and the Customer.

Signaling System 7 (SS7): The common Channel Out of Band Signaling protocol developed by the Consultative Committee for International Telephone and Telegraph (CCITT) and the American National Standards Institute (ANSI).

Signaling Transfer Point Access: Allows the Customer to access a specialized switch which provides SS7 network access and performs SS7 messaging routing and screening.

Special Access Service: Dedicated access between a Customer's premises and another Point of Presence for the purpose of originating or terminating communications. Special Access is available to both carriers and end-users, as defined in this tariff.

Switched Access Service: Access to the switched network of an Exchange Carrier for the purpose of originating or terminating communications. Switched Access is available to carriers, as defined in this tariff.

Trunk: A communications path connecting two switching systems in a network, used in the establishment of an end-to-end connection.

ACCESS SERVICE

2. REGULATIONS

2.1 Undertaking of the Company

2.1.1 Scope

Access Services consist of furnishing communications service in connection with one-way or two-way information transmission between points within the State of South Carolina under the terms of this tariff.

2.1.2 Shortage of Equipment or Facilities

2.1.2.A The Company reserves the right to limit or to allocate the use of existing facilities, or of additional facilities offered by the Company when necessary because of lack of facilities or due to some other cause beyond the Company's control.

2.1.2.B The furnishing of service under this tariff is subject to the availability on a continuing basis of all the necessary facilities and is limited to the capacity of the Company's Fiber Optic Cable facilities as well as facilities the Company may obtain from other carriers from time to time, to furnish service as required at the sole discretion of the Company.

2.1.2.C The provisioning and restoration of service in emergencies shall be in accordance with Part 64, Subpart D, Appendix A of the Federal Communication Commission's Rules and Regulations, which specifies the priority system for such activities.

2.1.3 Terms and Conditions

2.1.3.A Except as otherwise provided herein, service is provided and billed on the basis of a minimum period of at least one month, and shall continue to be provided until canceled by the Customer, in writing, in not less than 30 days notice. Unless otherwise specified herein, for the purpose of computing charges in this tariff, a month is considered to have 30 days.

ACCESS SERVICE

2. **REGULATIONS** (Cont'd)

2.1 **Undertaking of the Company** (Cont'd)

- 2.1.3.B Customers may be required to enter in written Service Orders which shall contain or reference the name of the Customer, a specific description of the Service Ordered; the rates to be charged, the duration of the services, and the terms and conditions in this tariff. The Customer will also be required to execute any other documents as may be reasonably requested by the Company.
- 2.1.3.C At the expiration of the initial term specified in each Service Order, or in any extension thereof, service shall continue on a month to month basis at the then current rates unless terminated by either party upon 30 days written notice. Any termination shall not relieve the Customer of its obligation to pay any charges incurred under the Service Order and this tariff prior to termination. The rights and obligations which by their nature extend beyond the termination of the term of the Service Order shall survive such termination.
- 2.1.3.D This tariff shall be interpreted and governed by the laws of the State of South Carolina without regard for the State's choice of laws provisions.

2.1.4 **Liability of the Company**

- 2.1.4.A The liability of the Company for damages arising out of the furnishing of its Services, including but not limited to mistakes, omissions, interruptions, delays, errors, other defects, or representations by the Company, or use of these services or damages arising out of the failure to furnish the service whether caused by act or omission, shall be limited to the extension of allowances for interruption as set forth in 2.6 below. The extension of such allowances for interruption shall be the sole remedy of the Customer and the sole liability of the Company. The Company will not be liable for any direct, indirect, incidental, special, consequential, exemplary or punitive damages to Customer as a result of any Company service, equipment or facilities, or the sets or omissions or negligence of the Company's employees or agents.

ACCESS SERVICE

2. **REGULATIONS** (Cont'd)

2.1 Undertaking of the Company (Cont'd)

- 2.1.4.B The Company shall not be liable for any delay or failure of performance or equipment due to causes beyond its control, including but not limited to: acts of God, fire, flood, explosion or other catastrophes; any law, order, regulation, direction action, or request of The United States government or of any other government, including state and local governments having or claiming jurisdiction over the Company, or of any department, agency, commission, bureau, corporation, or of any military authority; preemption of existing service in compliance with national emergencies; insurrections, riots; wars; unavailability of rights-of-way or materials; or strikes, lockouts work stoppages, or other labor difficulties.
- 2.1.4.C The Company shall not be liable for (a) any act or omission of any entity furnishing the Company or the Company's Customers facilities or equipment used for the interconnection with Access Services; or (b) for the acts or omissions of other Common Carrier or warehousemen.
- 2.1.4.D The Company shall not be liable for any damages or losses due to the fault or negligence of the Customer or due to the failure or malfunction of Customer-provided equipment or facilities.
- 2.1.4.E The Customer shall indemnify and hold the Company harmless from any and all losses, claims, demands, suits, or other actions, or any liabilities whatsoever, whether suffered, made instituted, or asserted by any other party or person(s), and for any loss, damage, or destruction of any property, whether owned by the Customer or others, caused or claimed to have been caused directly or indirectly by the installation, operation, failure to operate, maintenance, removal, condition, location, or use of any installation or equipment provided by the Company. The Company reserves the right to require each Customer to sign an agreement acknowledging acceptance of the provisions of this Section 2.1.4.F as a condition precedent to such installations.

ACCESS SERVICE

2. REGULATIONS (Cont'd)

2.1 Undertaking of the Company (Cont'd)

- 2.1.4.F The Company shall not be liable for any defacement of or damage to Customer's premises resulting from the furnishing of services or equipment on such premises or the installation or removal thereof, unless such defacement or damage is caused by the gross negligence or willful misconduct of the Company's agents or employees. No agents or employees of other participating Carriers shall be deemed to be agents or employees of the Company.
- 2.1.4.G The Company shall be indemnified and held harmless by the end user against any claim, loss or damage arising from the end user's use of services offered under this tariff including: claims for libel, slander, invasion of privacy or infringement of copyright arising from the end user's own communications; patent infringement claims arising from the end user's combining or connecting the service offered by the Company with facilities or equipment furnished by the end user of another Interexchange carrier; or all other claims arising out of any act or omission of the end user in connection with any service provided pursuant to this tariff.
- 2.1.4.H The entire liability of the Company for any claim, loss, damage or expense from any cause whatsoever shall in no event exceed sums actually paid to the Company by the Customer for the specific services giving rise to the claim, and no action or proceeding against the Company shall be commenced more than one (1) year after the service is rendered.
- 2.1.4.I The Company makes no warranties or representation, express or implied, including warranties or merchantability or fitness for a particular use, except those expressly set forth herein.
- 2.1.4.J The Company shall not be liable for any act or omission of any other company or companies furnishing a portion of the service, or for damages associated with service, Channels, or equipment which result from the operation of Customer-provided systems, equipment, facilities or services which are interconnected with Company services.

ACCESS SERVICE

2. **REGULATIONS** (Cont'd)

2.1 **Undertaking of the Company** (Cont'd)

2.1.4.K The Company does not guarantee nor make any warranty with respect to service installations at locations at which there is present an atmosphere that is explosive, prone to fire, dangerous or otherwise unsuitable for such installations. The Customer and end user shall indemnify and hold the Company harmless from any and all losses, claims, demands, suits, or other actions, or any liability whatsoever, whether suffered, made, instituted or asserted by the Customer or by another party, for any personal injury, to , or death of, any person or persons, or for any loss, damage or destruction of any property, whether owned by the Customer or others, caused or claimed to have been caused directly or indirectly, by the installation, operation, failure to operate, maintenance, removal, presence, condition, locations or use of service furnished by the Company at such locations.

2.1.4.L The Company shall not be liable for the Customer's failure to fulfill its obligations to take all necessary steps including, without limitation, obtaining, installing and maintaining all necessary equipment, materials and supplies, for interconnecting the terminal equipment or communications system of the Customer, or any third party acting as its agent, to the Company's network. The Customer shall secure all licenses, permits, rights-of-way, and other arrangements necessary for such interconnection. In addition, the Customer shall ensure that its equipment and/or system or that of its agent is properly interfaced with the Company's service, that the signals emitted into the Company's network are of the proper mode, bandwidth, power, data speed, and signal level for the intended use of the Customer and in compliance with the criteria set forth in Section 2.1.6 following, and that the signals do not damage Company equipment, insure its personnel or degrade service to other Customers. If the Customer or its agent fails to maintain and operate its equipment and/or system or that of its agent properly, with resulting imminent harm to Company equipment, personnel, or the quality of service to other Customer, the Company, may, upon written notice require the use of protective equipment at the Customer's expense. If this fails to produce satisfactory quality and safety, the Company may, upon written notice, terminate the Customer's service without liability.

ACCESS SERVICE

2. **REGULATIONS** (Cont'd)

2.1 Undertaking of the Company (Cont'd)

2.1.4.M The Company shall not be liable for any act or omission concerning the implementation of Presubscription, as defined herein.

2.1.4.N With respect to Telecommunications Relay Service (TRS), any service provided by the Company which involves receiving, translating, transmitting or delivering messages by telephone, text telephone, a telecommunications device for the deaf, or any other instrument over the facilities of Company or any connecting Carrier, Company's liability for the interruption or failure of the service shall not exceed an amount equal to the Company's charge for a one minute call to the called station at the time the affected call was made.

2.1.5 Notification of Service-Affecting Activities

The Company will provide the Customer reasonable notification of service-affecting activities that may occur in normal operation of its business. Such activities may include, but are not limited to, equipment or facilities additions, removals or rearrangements and routine preventative maintenance. Generally, such activities are not specific to an individual Customer but affect many Customer's services. No specific advance notification period is applicable to all service activities. The Company will work cooperatively with the Customer to determine the reasonable notification requirements. With some emergency or unplanned service-affecting conditions, such as an outage resulting from cable damage, notification to the Customer may not be possible.

2.1.6 Provision of Equipment & Facilities

2.1.6.A The Company shall use reasonable efforts to make available services to a Customer on or before a particular date, subject to the provisions of and compliance by the Customers with, the regulations contained in this tariff. The Company does not guarantee availability by any such date and shall not be liable for any delays in commencing service to any Customer.

2.1.6.B The Company shall use reasonable efforts to maintain facilities and equipment that it furnishes to the Customer. The Customer may not, nor may the Customer permit others to, rearrange, disconnect, remove, attempt to repair or otherwise interfere with any of the facilities or equipment installed by the Company, except upon the written consent of the Company.

ACCESS SERVICE

2. REGULATIONS (Cont'd)

2.1 Undertaking of the Company (Cont'd)

- 2.1.6.C The Company may substitute, change or rearrange any equipment or facility at any time and from time to time, but shall not thereby alter the technical parameters of the service provided to the Customer.
- 2.1.6.D Equipment the Company provides or installs at the Customer's premises for use in connection with the services the Company offers shall not be used for any purpose other than that for which the Company provided it.
- 2.1.6.E The Customer shall be responsible for the payment of service charges imposed on the Company by another entity, for visits to the Customer's premises when the service difficulty or trouble report results from the use of equipment or facilities provided by any party other than the Company, including, but not limited to the Customer.
- 2.1.6.F The Company shall not be responsible for the installation, operation, or maintenance of any Customer-provided communications equipment. Where such equipment is connected to the facilities furnished pursuant to this tariff, the responsibility of the Company shall be limited to the furnishing of facilities offered under this tariff and to the maintenance and operation of such facilities. Notwithstanding the above, the Company shall not be responsible for:
 - 2.1.6.F.(1) the transmission of signals by Customer-provided equipment or for the quality of, or defects in, such transmission;
 - 2.1.6.F.(2) the reception of signals by Customer-provided equipment; or
 - 2.1.6.F.(3) network control signaling where such signaling is performed by Customer-provided network control signaling equipment.
- 2.1.6.G The Company intends to work cooperatively with the Customer to develop network contingency plans in order to maintain maximum network capability following natural or man-made disasters which affect telecommunications services.

ACCESS SERVICE

2. REGULATIONS (Cont'd)

2.1 Undertaking of the Company (Cont'd)

2.1.6.H The Company reserves the reasonable right to assign, designate or change telephone numbers, any other call number designations associated with Access Services, or the Company serving central office prefixes associated with such numbers, when necessary in the conduct of its business.

2.1.7 Non-Routine Installation

At the Customer's request, installation and/or maintenance may be performed outside the Company's regular business hours or in unusual locations. In such cases, charges based on cost of the actual labor, material, or other costs incurred by or charged to the Company will apply. If installation is started during regular business hours, but at the Customer's request, extends beyond regular business hours into time periods including, but not limited, to, weekends, holidays, and/or night hours, additional charges may apply.

2.1.8 Special Construction

Subject to the arrangement of the Company and to all of the regulations contained in this tariff, special construction of facilities may be undertaken on a reasonable efforts basis at the request of the Customer. Special construction is that construction undertaken and characterized by one or more of the following:

- 2.1.8.A where facilities are not presently available and there is no other requirement for the facilities so constructed;
- 2.1.8.B of a type other than that which the Company would normally utilize in the furnishing of its services;
- 2.1.8.C where facilities are to be installed over a route other than that which the Company would normally utilize in the furnishing of its services;
- 2.1.8.D where facilities are requested in a quantity greater than that which the Company would normally construct;
- 2.1.8.E where installation is on an expedited basis;
- 2.1.8.F on a temporary basis until permanent facilities are available;

ACCESS SERVICE

2. REGULATIONS (Cont'd)

2.1 Undertaking of the Company (Cont'd)

2.1.8.G installation involving abnormal costs; or

2.1.8.H in advance of its normal construction schedules.

Special construction charges for Switched Access Services will be determined on a time and expense basis, based on the company's current hourly charges.

2.1.9 Ownership of Facilities

Title to all facilities provided in accordance with this tariff remains in the Company, its agents, contractors or suppliers.

2.2 Prohibited Uses

2.2.1 The services the Company offers shall not be used for any unlawful purpose or for any use as to which the Customer has not obtained all required governmental approvals, authorizations, licenses, consents and permits.

2.2.2 The Company may require applicants for service who intend to use the Company's offerings for resale and/or for shared use to file a request with the Company confirming that their use of the Company's offerings complies with relevant laws and Federal Communications Commission regulations, policies, orders, and decisions; and if the reseller intends to provide intrastate services, is certified with the State Regulatory Authority.

2.2.3 The Company may require a Customer to immediately shut down its transmission of signals if said transmission is causing interference to others.

2.3 Obligations of the Customer

2.3.1 The Customer shall be responsible for

2.3.1.A the payment of all applicable charges pursuant to this tariff;

ACCESS SERVICE

2. **REGULATIONS** (Cont'd)

2.3 **Obligations of the Customer** (Cont'd)

- 2.3.1.B reimbursing the Company for damage to, or loss of, the Company's facilities or equipment caused by the acts or omissions of the Customer; or the noncompliance by the Customer with these regulations; or by fire or theft or other casualty on the Customer's premises, unless caused by the negligence or willful misconduct of the employees or agents of the Company. The Company will, upon reimbursement for damages to its facilities or equipment, cooperate with the Customer in prosecuting a claim against the person causing such damage and the Customer shall be subrogated in the Company's right of recovery of damages to the extent of such payment;
- 2.3.1.C providing at no charge, as specified from time to time by the Company, as needed, personnel, equipment, space, and power to operate Company facilities and equipment installed on the Customer premises, and the level of heating and air conditioning necessary to maintain the proper operating environment on such premises;
- 2.3.1.D obtaining, maintaining, and otherwise having full responsibility for all rights-of-way and conduit necessary for installation of fiber optic cable and associated equipment used to provide Access Services to the Customer from the cable building entrance or property line to the location of the equipment space described in 2.3.1(C) above. Any costs associated with obtaining and maintaining the rights-of-way described herein, including the costs of altering the structure to permit installation of the Company-provided facilities, shall be borne entirely by, or may be charged by the Company, to the Customer. The Company may require the Customer to demonstrate its compliance with this subsection prior to accepting an order for service;
- 2.3.1.E providing a safe place to work and complying with all laws and regulations regarding the working conditions on the premises at which Company employees and agents shall be installing or maintaining Company facilities and equipment. The Customer may be required to install and maintain Company facilities and equipment within a hazardous area if, in the Company's opinion, injury or damage to the Company employees or property might result from installation or maintenance by the Company. The Customer shall be responsible for identifying, monitoring, removing, and disposing of any hazardous material (e.g. asbestos) prior to any construction or installation work.

ACCESS SERVICE

2. REGULATIONS (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.1.F complying with all laws and regulations applicable to, and obtaining all consents, approvals, licenses, and permits as may be required with respect to the location of Company facilities and equipment in any Customer premises or the rights-of-way for which the Customer is responsible for obtaining under Section 2.3.1(D) above; and granting or obtaining permission for Company agents or employees to enter the Customer premises at any time for the purpose of installing, inspecting, maintaining, repairing, or upon termination of service as stated herein, removing the facilities or equipment of the Company; and

2.3.1.G not creating or allowing to be placed or maintained any liens or other encumbrances on the Company's equipment or facilities.

2.3.2 Claims

With respect to any service or facility provided by the Company; Customer shall indemnify, defend and hold harmless the Company from all claims, actions, damages, liabilities, costs, and expenses, including reasonable attorneys' fees for:

2.3.2.A any loss, destruction or damage to property of the Company or any third party, or the death of or injury to persons, including, but not limited to employees or invitees of either the Company or the Customer, to the extent caused by or resulting from the negligent or intentional act or omission of the Customer, its employees, agents, representatives or invitees; and

2.3.2.B any claim, loss, damage, expense or liability for infringement of any copyright, patent, trade secret, or any proprietary or intellectual property right of any third party, arising from any act or omission by the Customer, including without limitation, use of the Company's services and facilities in a manner not contemplated by the agreement between the Customer and the Company.

2.3.3 Jurisdictional Reporting

The jurisdictional reporting requirements will be as specified below. When a Customer orders Access service, its projected Percent Interstate Usage (PIU) must be provided in whole numbers to the Company. These whole number percentages will be used by the Company to apportion the use and/or charges between interstate and intrastate until a revised report is received as set forth herein.

ACCESS SERVICE

2. **REGULATIONS** (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.3.A **Originating Access:** Originating access minutes may be based on traffic originating at the State, LATA or Local Switching Center level, provided that the traffic being measured is only traffic originating from the Company's Local Switching Center(s). The Customer must provide the Company with a projected PIU factor on a quarterly basis, as specified below. Originating access minutes will be measured as follows, based on type of access:

2.3.3.A.(1) For Feature Group D Switched Access Service(s), as defined in Section 4.2.1, where the Company can determine jurisdiction by its call detail, the projected Percent Interstate Usage (PIU) will be developed by the Company on a monthly basis by dividing the measured interstate originating access minutes by the total originating access minutes.

2.3.3.A.(2) For Feature Group D with 950 Access (Feature Group B), as defined in section 4.2, the Customer must provide the Company with a projected PIU factor by supplying the Company with an interstate percentage of originating access minutes.

2.3.3.A.(3) For 500, 700, 8XX, calling card and operator service access, the Customer must provide the Company with a projected PIU factor for each type of access. The Customer who provides a PIU factor shall supply the Company with an interstate percentage of originating access minutes.

2.3.3.A.(4) If no PIU for originating minutes is submitted as specified herein, then the projected PIU will be set on a default basis of 50 percent interstate traffic and 50 percent intrastate traffic.

2.3.3.B **Terminating Access:** For Feature Group D Switched Access Service(s), the Customer must provide the Company with a projected PIU factor by supplying the Company with an interstate percentage of terminating access minutes on a quarterly basis, as described in Sections 2.3.3.D below. If no projected PIU factor is submitted by the Customer, then the projected PIU will be set on a default basis of 50 percent interstate traffic and 50 percent intrastate traffic.

ACCESS SERVICE

2. **REGULATIONS** (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.3.C Except where the Company-measured access minutes are used as set forth in 2.3.3.A above, the Customer-reported projected PIU factor, as set forth above, will be used until the Customer reports a different projected PIU factor, as set forth below. The revised report will serve as the basis for future billing, and will be effective on the next bill date.

2.3.3.D Effective on the first of January, April, July and October of each year, the Customer shall update its interstate and intrastate jurisdictional report. The Customer shall forward to the Company, to be received no later than 15 days after the first of each such month, a revised report showing the interstate and intrastate percentage of use for the past three months ending the last day of December, March, June and September, respectively, for each service arranged for interstate use, based solely on the traffic originating from or terminating to the Company Local Switching Center. The revised report will serve as the basis for the next three months billing and will be effective on the bill date for that service. If the Customer does not supply the reports for those services where reports are needed, the Company will assume the percentage to be the same as provided previously. For those cases in which a quarterly report has never been received from the Customer, the Company will assume the percentages to be the same as those provided in the Access Service Request.

2.3.3.E Jurisdictional Report Verification: For Switched Access Service, if a billing dispute arises or a regulatory commission questions the projected PIU factor, the Customer will provide the data issued to determine the projected PIU factor. The Customer will supply the data within 30 days of the Company's request.

The Customer shall keep records of call detail from which the percentage of interstate and intrastate use can be ascertained and, upon request of the Company, shall make the records available for inspection as reasonably necessary for purposes of verification of the percentages. The Company reserves the right to conduct an audit at any time during the year. The Customer, at its own expense, has the right to retain an independent auditing firm.

ACCESS SERVICE

2. **REGULATIONS** (Cont'd)

2.4 Customer Equipment and Channels

2.4.1 In General

A Customer may transmit or receive information or signals via the facilities of the Company.

2.4.2 Interconnection of Facilities

2.4.2.A Any special interface equipment necessary to achieve compatibility between the facilities and equipment of the Company used for furnishing Access Services and the Channels, facilities, or equipment of others shall be provided at the Customer's expense.

2.4.2.B Access Services may be connected to the services or facilities of other communications carriers only when authorized by, and in accordance with, the terms and conditions of the tariffs of the other communications carriers which are applicable to such connections.

2.5 Payment Arrangements

2.5.1 Payment for Service

The Customer is responsible for payment of all charges for services and facilities furnished by the Company to the Customer or its Joint or Authorized Users.

2.5.1.A Taxes

The Customer is responsible for the payment of any sales, use, gross receipts, excise, access or other local, state and federal taxes, charges or surcharges (however designated) excluding taxes on the Company's net income imposed on or based upon the provision, sale or use of Access Services. All such taxes shall be separately designated on the Company's invoices. Any taxes imposed by a local jurisdiction (e.g. county and municipal taxes) will only be recovered from those Customers located in the affected jurisdictions. If an entity other than the Company (e.g. another carrier or a supplier) imposes charges on the Company, in addition to its own internal costs, in connection with a service for which the Company's Non-Recurring Charge is specified, those charges will be passed on to the Customer. It shall be the responsibility of the Customer to pay any such taxes that subsequently become applicable retroactively.

ACCESS SERVICE

2. REGULATIONS (Cont'd)

2.5 Payment Arrangements (Cont'd)

2.5.1.B A surcharge is imposed on all charges for service originating at addresses in states which levy, or assert a claim of right to levy, a gross receipts tax on the Company's operations in any such state, or a tax on interstate access charges incurred by the Company for originating access to telephone exchanges in that state. This surcharge is based on the particular state's receipts tax and other state taxes imposed directly or indirectly upon the Company by virtue of, and measured by, the gross receipts or revenues of the Company in that state and/or payment of interstate access charges in that state. The surcharge will be shown as a separate line item on the Customer's monthly invoice.

2.5.2 Billing and Collection of Charges

Unless otherwise specified herein, bills are due and payable upon receipt.

The Company shall bill on a current basis all charges incurred by, and credits due to, the Customer under this tariff attributable to services established, provided, or discontinued during the preceding billing period.

2.5.2.A Non-Recurring Charges are due and payable within 30 days after the invoice date. The Company shall present an invoice for Non-Recurring Charges monthly to the Customer.

2.5.2.B The Company shall present invoice for non-usage sensitive Recurring Charges monthly to the Customer, in advance of the month in which service is to be provided, and invoices for usage sensitive charges monthly to the Customer subsequent to the usage. Recurring and usage sensitive charges shall be due and payable within 30 days after the invoice date.

2.5.2.C When service does not begin on the first day of the bill cycle, or end on the last day of the bill cycle, the charge for the fraction of the month in which service was furnished will be calculated on a pro-rata basis, based on the actual calendar month.

ACCESS SERVICE

2. REGULATIONS (Cont'd)

2.5 Payment Arrangements (Cont'd)

2.5.2.D Billing of the Customer by the Company will begin on the Service Commencement Date. Billing accrues through and includes the day that the service, circuit, arrangement or component is discontinued.

2.5.2.E Amounts not paid within 30 days after the date of invoice will be considered past due. If the Company becomes concerned at any time about the ability of a Customer to pay its bills, the Company may require that the Customer pay its bills within a specified number of days and make such payments in cash or the equivalent of cash.

If a service is disconnected by the Company in accordance with section 2.5.5 following and later restored, restoration of service will be subject to all applicable installation charges.

2.5.2.F Payment Dates and Late Payment Penalties

- (1) All bills dated as set forth herein are due 31 days (payment date) after the bill day or by the next bill date (i.e., same date in the following month as the bill date), whichever is the shortest interval, except as provided herein, and are payable in immediately available funds. If the customer does not receive a bill at least 20 days prior to the 31-day payment due date, then the bill shall be considered delayed. When the bill has been delayed, upon request of the customer the due date will be extended by the number of days the bill was delayed. Such request of the customer must be accompanied with proof of late bill receipt.

If such payment date would cause payment to be due on a Saturday, Sunday or Legal Holiday, payment for such bills will be due from the customer as follows:

- If the payment date falls on a Sunday or on a Legal Holiday, which is observed on a Monday, the payment date shall be the first non-Holiday day following such Sunday or Legal Holiday.
- If the payment date falls on a Saturday or on a Legal Holiday which is observed on Tuesday, Wednesday, Thursday or Friday, the payment date shall be the last non-Holiday day preceding such Saturday or Legal Holiday.

ACCESS SERVICE

2. REGULATIONS (Cont'd)

2.5 Payment Arrangements (Cont'd)

- (2) Further, if no payment is received by the payment date or if a payment or any portion of a payment is received by the Telephone Company after the payment date as set forth in (1) preceding, or if a payment or any portion of a payment is received by the Telephone Company in funds which are not immediately available to the Telephone Company, then a late payment penalty shall be due to the Telephone Company. The late payment penalty shall be the payment or the portion of the payment not received by the payment date times a late factor. The late factor shall be the highest interest rate (in decimal value) which may be levied by law for commercial transactions, compounded daily for the number of days from the payment date to and including the date that the customer actually makes the payment to the Telephone Company.

2.5.2.G Billing Disputes Resolved in Favor of the Telephone Company

Late Payment charges will apply to amounts withheld pending settlement of the dispute. Late payment charges are calculated as set forth in (C)(2) preceding except that when the customer disputes the bill on or before the payment date and pays the undisputed amount on or before the payment date, the penalty interest period shall not begin until 10 days following the payment date.

ACCESS SERVICE

2. **REGULATIONS** (Cont'd)

2.5 Payment Arrangements (Cont'd)

2.5.2.H Billing Disputes Resolved in Favor of the Customer

If the customer pays the total billed amount and disputes all or part of the amount, the Telephone Company will refund any overpayment. In addition, the Telephone Company will pay to the customer penalty interest on the overpayment. When a claim is filed within 90 days of the due date, the penalty interest period shall begin on the payment date. When a claim is filed more than 90 days after the due date, the penalty interest period shall begin from the date of the claim or the date of overpayment, whichever is later.

The penalty interest period shall end on the date that the Telephone Company actually refunds the overpayment to the customer. The penalty interest rate shall be the highest interest rate (in decimal value) which may be levied by law for commercial transactions, compounded daily for the number of days from the first date to and including the last date of the period involved.

2.5.2.I The Customer shall notify the Company of any disputed items on an invoice within 90 days of receipt of the invoice. If the Customer and the Company are unable to resolve the dispute to their mutual satisfaction, the Customer may file a complaint with the South Carolina Public Service Commission in accordance with the Commission's rules of procedures.

2.5.2.J Ordering, Rating and Billing of Access Services Where More Than One Exchange Carrier is Involved

Both Multiple bill and Single bill billing options are supported under this tariff. Under a Meet Point Billing arrangement, the Company will only bill for charges for traffic carried between the Company Local Switching Center and the end user.

The billing arrangements are subject to the provisions of the Multiple Exchange Carrier Access billing Guidelines (MECAB) and the Multiple Exchange Carrier Ordering and Design Guidelines (MECOD), except that the Company will not bill for local transport as described in MECAB. The Company will bill the Tandem Connect rate elements as specified in this Tariff.

ACCESS SERVICE

2. **REGULATIONS** (Cont'd)

2.5 Payment Arrangements (Cont'd)

The Company must notify the Customer of: 1) the meet point option that will be used; 2) the Carrier(s) that will render the bill(s); 3) the Carrier(s) to whom payment should be remitted; and 4) the Carrier(s) that will provide the bill inquiry function. The Company shall provide such notification at the time orders are placed for Access Service. Additionally, the Company shall provide this notice, in writing, 30 days in advance of any changes in the arrangement.

The Company will handle the ordering, rating and billing of Access Service under this tariff where more than one Exchange Carrier is involved in the provision of Access Services, as follows:

- 2.5.2.J.(1) The Company must receive an order for Feature Group D (FGD) Switched Access Service, as defined herein, ordered to the Company's Local Switching Center through a switch operated by another Exchange Carrier.
- 2.5.2.J.(2) In addition, for FGD Switched Access Service ordered to the Company's Local Switching Center through a switch operated by another Exchange Carrier with whom the Company has an agreement, the Customer may be required to submit an order as specified by the Exchange carrier which operates the switch.
- 2.5.2.J.(3) Separate bills will be rendered by the Exchange Carrier for FGD access service, if the multiple bill option is selected.

ACCESS SERVICE

2. REGULATIONS (Cont'd)

2.5 Payment Arrangements (Cont'd)

2.5.2.J.(4) Rating and Billing of Service: Each company will provide its portion of access service based on the regulations, rates and charges contained in its respective Access Service tariff, subject to the following rules, as appropriate:

2.5.2.J.(4).(a) The application of non-distance sensitive rate elements varies according to the rate structure and the location of the facilities involved:

2.5.2.J.(4).(a).(I) when rates and charges are listed on a per minute basis, the Company's rates and charges will apply to traffic originating from the Customer's premises and terminating at the end user's premises, and vice versa.

2.5.3 Deposits

2.5.3.A Before the service or facility is furnished to a Customer whose credit has not been duly established, the Company may require a Customer to make a deposit to be held as a guarantee for the payment of charges. A deposit does not relieve the Customer of the responsibility for the prompt payment of bills on presentation. The deposit will not exceed an amount equal to:

2.5.3.A.(1) an amount in excess of two twelfths of the estimated charge for the service for the ensuing twelve months; or

2.5.3.A.(2) one half of the estimated charge for the minimum payment for a service or facility which has a minimum payment period of more than one month; except that the deposit may include an additional amount in the event that a termination charge is applicable. In addition, the Company shall be entitled to require such an applicant or Customer to pay all its bills within a specified period of time, and to make such payments in cash or the equivalent of cash. At the Company's option, such deposit may be refunded to the Customer's account at any time. Also, the Company reserves the right to cease accepting and processing Service Orders after it has requested a security deposit and prior to the Customer's compliance with this request.

ACCESS SERVICE

2. REGULATIONS (Cont'd)

2.5 Payment Arrangements (Cont'd)

2.5.3.B A deposit may be required in addition to an advance payment.

2.5.3.C The charges set forth in this tariff for Channel terminations contemplate installations made in normal locations and under normal working conditions. Any installations to be made under other circumstances are subject to additional charges.

2.5.3.D When a service or facility is discontinued, the amount of a deposit, if any, will be applied to the Customer's account and any credit balance remaining will be refunded. Before the service or facility is discontinued, the Company may, at its option return the deposit, or credit the Customer's account.

2.5.4 Refusal and Discontinuance of Service

2.5.4.A Upon nonpayment of any amounts owing to the Company, the Company may, by giving requisite prior written notice to the Customer discontinue or suspend service without incurring any liability.

2.5.4.B Upon violation of any of the other material terms or conditions for furnishing service the Company may, by giving 30 days prior notice in writing to the Customer, discontinue or suspend service without incurring any liability if such violation continues during that period.

2.5.4.C Upon condemnation of any material portion of the facilities used by the Company to provide service to a Customer or if a casualty renders all or any material portion of such facilities inoperable beyond feasible repair, the Company, by notice to the Customer, may discontinue or suspend service without incurring any liability.

2.5.4.D Upon the Customer's insolvency, assignment for the benefit of creditors, filing for bankruptcy or reorganization, or failing to discharge an involuntary petition within the time permitted by law, the Company may immediately discontinue or suspend service without incurring any liability.

ACCESS SERVICE

2. REGULATIONS (Cont'd)

2.5 Payment Arrangements (Cont'd)

2.5.4.E Upon any governmental prohibition, or required alteration of the services to be provided or any violation of an applicable law or regulation, the Company may immediately discontinue service without incurring any liability.

2.5.4.F Upon the Company's discontinuance of service to the Customer under Section 2.5.4.A or 2.5.4.B above, the Company, in addition to all other remedies that may be available to the Company at law or in equity or under any other provision of this tariff, may declare all future monthly and other charges which would have been payable by the Customer during the remainder of the term for which such services would have otherwise been provided to the Customer to be immediately due and payable.

2.5.4.G When Access Service is provided by more than one Company, the companies involved in providing the joint service may individually or collectively deny service to a Customer for nonpayment. Where the Company(s) affected by the nonpayment is incapable of effecting discontinuance of service without cooperation from the other joint providers of Switched Access Service, such other Company(s) will, if technically feasible, assist in denying the joint service to the Customer. Service denial for such joint service will only include calls originating or terminating within, or transiting, the operating territory of the Company initiating the service denial for nonpayment. When more than one of the joint providers must deny service to effectuate termination for nonpayment, in cases where a conflict exists in the applicable tariff provisions, the tariff regulations of the Company whose Local Switching Center serves the Customer shall apply for joint service discontinuance.

2.5.4.H The Company may discontinue the furnishings of any and/or all service(s) to a Customer, without incurring any liability:

ACCESS SERVICE

2. REGULATIONS (Cont'd)

2.5 Payment Arrangements (Cont'd)

2.5.4.H.(1) Immediately and without notice if the Company deems that such action is necessary to prevent or protect against fraud or to otherwise protect its personnel, agents, facilities or services. The Company may discontinue service pursuant to this subsection 2.5.4.H.(1) (a-f) if:

2.5.4.H.(1).(a) The Customer refuses to furnish information to the Company regarding the Customer's credit-worthiness, its past or current use of Common Carrier communications service, or its planned use of service(s); or

2.5.4.H.(1).(b) The Customer provides false information to the Company regarding the Customer's identity, address, credit-worthiness, past or current use of Common Carrier communications services, or its planned use of the Company's service(s); or

2.5.4.H.(1).(c) The Customer states that it will not comply with a request of the Company for security for the payment for service(s) in accordance with Section 2.5.4.A above; or

2.5.4.H.(1).(d) The Customer has been given written notice by the Company of any past due amount (which remains unpaid in whole or in part) for any of the Company's other Common Carrier communications services to which the Customer either subscribes or had subscribed or used; or

2.5.4.H.(1).(e) The Customer uses service to transmit a message, locate a person or otherwise give or obtain information without payment for the service; or

ACCESS SERVICE

2. REGULATIONS (Cont'd)

2.5 Payment Arrangements (Cont'd)

2.5.4.H.(1).(f) The Customer uses, or attempts to use, service with the intent to void the payment, either in whole or in part, of the tariffed charges for the service by:

2.5.4.H.(1).(f).(i) Using or attempting to use service by rearranging, tampering with, or making connections to the Company's service not authorized by this tariff; or

2.5.4.H.(1).(f).(ii) Using tricks, schemes, fake or invalid numbers, false credit devices, electronic devices; or

2.5.4.H.(1).(f).(iii) Any other fraudulent means or devices; or

2.5.4.H.(2) Immediately upon written notice to the Customer of any sum thirty (30) days past due;

2.5.4.H.(3) Immediately upon written notice to the Customer, after failure of the Customer to comply with a request made by the Company for security for the payment of service in accordance with Section 2.5.4.A, above; or

2.5.4.H.(4) Seven (7) days after sending the Customer written notice of noncompliance with any provision of this tariff if the noncompliance is not corrected within that seven (7) day period. The discontinuance of service(s) by the Company pursuant to this Section does not relieve the Customer of any obligation to pay the Company for charges due and owing for service(s) furnished up to the time of discontinuance.

2.5.4.I In the event the Company incurs fees or expenses, including attorney's fees, in collecting, or attempting to collect, any charges owed the Company, the Customer will be liable to the Company for the payment of all such fees and expenses reasonably incurred.

ACCESS SERVICE

2. REGULATIONS (Cont'd)

2.5 Payment Arrangements (Cont'd)

2.5.5 Cancellation of Application for Service

2.5.5.A Applications for service are noncancellable unless the Company otherwise agrees. Where the Company permits the Customer to cancel an application for service prior to the start of service or prior to any special construction, no charges will be imposed except as may be specified in this Section and Section 3.2.3.

2.5.5.B Where, prior to cancellation by the Customer, the Company incurs any expenses in installing the service or in preparing to install the service that it otherwise would not have incurred, a charge equal to the costs the Company incurred, less net salvage, shall apply, but in no case shall this charge exceed the sum of the charge for the minimum period of services ordered, including installation charges, and all charges others levy against the Company that would have been chargeable to the Customer had service begun.

2.6 Allowances for Interruptions in Service

Interruptions in service which are not due to the negligence of or noncompliance with the provisions of this tariff by the Customer or the operation or malfunction of the facilities, power, or equipment provided by the Customer, will be credited to the Customer as set forth in 2.6.1 for the part of the service that the interruption affects.

2.6.1 Credit for Interruptions

2.6.1.A A credit allowance will be made when an interruption occurs because of a failure of any component furnished by the Company under this tariff. An interruption period begins when the Customer reports a service, facility or circuit, to be interrupted and releases it for testing and repair. An interruption period ends when the service, facility, or circuit is operative. If the Customer reports a service, facility, or circuit to be inoperative but declines to release it for testing and repair, it is considered to be impaired, but not interrupted.

ACCESS SERVICE

2. REGULATIONS (Cont'd)

2.6 Allowances for Interruptions in Service (Cont'd)

2.6.1.B For Switched Access Service, no credit will be allowed for an interruption of less than twenty-four hours. After the first twenty-four hour period, a credit equal to 1/30 of the Direct Connect facilities charges will be applied to each interruption which is in excess of twelve hours and up to twenty-four hours.

2.6.2 Limitations on Allowances

No credit allowance will be made for:

- 2.6.2.A interruptions due to the negligence of, or noncompliance with the provision of this tariff by the Customer, Authorized User, Joint-User, or other Common Carrier providing service connected to the service of Company;
- 2.6.2.B interruptions due to the negligence of any person other than the Company, including, but not limited to, the Customer or other Common Carriers connected to the Company's facilities;
- 2.6.2.C interruptions due to the failure or malfunction of non-Company equipment;
- 2.6.2.D interruptions of service during any period in which the Company is not given full and free access to its facilities and equipment for the purpose of investigating and correcting interruptions;
- 2.6.2.E interruptions of service during a period when the Customer has released service to the Company for maintenance purposes or for implementation of a Customer order for a change in service arrangements;
- 2.6.2.F interruptions of service during any period when the Customer has released service to the Company for maintenance purposes or for implementation of a Customer order for a change in service arrangements;
- 2.6.2.G interruption of service due to circumstances or causes beyond the control of the Company.

ACCESS SERVICE

2. **REGULATIONS** (Cont'd)

2.6 Allowances for Interruptions in Service (Cont'd)

2.6.2.H Use of Alternative Service Provided by the Company: Should the Customer elect to use an alternative service provided by the Company during the period that a service is interrupted, the Customer must pay the tariffed rates and charges for the alternative service used.

2.6.3 Cancellation for Service Interruption

Cancellation or termination for service interruption is permitted only if any circuit experiences a single continuous outage of eight (8) hours or more, or cumulative service credits equaling 16 hours in a continuous 12-month period. The right to cancel service under this provision applies only to the single circuit which has been subject to the outage or cumulative service credits.

2.7 Cancellation of Service

2.7.1 If a Customer cancels services before the completion of the term for any reason whatsoever other than a service interruption (as defined in Section 2.6.1 above), the Customer agrees to pay to the Company the following sums which shall become due and owing as of the effective date of the cancellation or termination, and shall be payable within the period set forth in Section 2.5.2: all costs, fees and expenses reasonably incurred in connection with 1) all Non-Recurring Charges reasonably expended by the Company to establish service to Customer, plus 2) any disconnection, early cancellation or termination charges reasonably incurred and paid to third parties by Company on behalf of Customer, plus 3) all Recurring Charges specified in the applicable tariff for the balance of the then current term.

2.8 Transfers and Assignments

Neither the Company nor the Customer may assign or transfer its rights or duties in connection with the services and facilities provided by the Company without the written consent of the other party, except that the Company may assign its rights and duties (a) to any subsidiary, parent Company or affiliate of the Company (b) pursuant to any sale or transfer of substantially all the assets of the Company; or pursuant to any financing, merger or reorganization of the Company.

ACCESS SERVICE

2. **REGULATIONS** (Cont'd)

2.9 Notices and Communications

- 2.9.1 The Customer shall designate on the Service Order an address to which the Company shall mail or deliver all notices and other communications, except that the Customer may also designate a separate address to which the Company's bills for service shall be mailed.
- 2.9.2 The Company shall designate on the Service Order an address to which the Customer shall mail or deliver all notices and other communications, except that the Company may designate a separate address, on each bill for service, to which the Customer shall mail payment on that bill.
- 2.9.3 All notices or other communications required to be given pursuant to this tariff shall be in writing. Notices and other communications of either party, and all bills mailed by the Company, shall be presumed to have been delivered to the other party on the third business day following deposit of the notice, communication, or bill with the U.S. Mail or a private delivery service, prepaid and properly addressed, or when actually received or refused by the addressee, whichever occurs first.
- 2.9.4 The Company or the Customer shall advise the other party of any changes to the addresses designated for notices, other communications or billing, by following the procedures for giving notice set forth herein

2.10 Unlawful and Abusive Use

The services provided under this tariff shall not be used for an unlawful purpose or used in an abusive manner.

Abusive use includes:

- The use of the service of the Telephone Company for a call or calls, anonymous or otherwise, in a manner reasonable expected to frighten, abuse, torment, or harass another;
- The use of the service in such a manner as to interfere unreasonably with the use of the service by one or more other customers.

ACCESS SERVICE

2. REGULATIONS (Cont'd)

2.11 Identification and Rating of VoIP-PSTN Traffic

2.11.1 Scope

VoIP-PSTN Traffic is defined as traffic exchanged between the Telephone Company end user and the customer in time division multiplexing ("TDM") format that originates and/or terminates in Internet protocol ("IP") format. This section governs the identification of VoIP-PSTN Traffic that is required to be compensated at rates not to exceed interstate access rates by the Federal Communications Commission in its Report and Order in WC Docket No. 10-90, *etc.*, FCC Release No. 11-161 (November 18, 2011) ("FCC Order"). Specifically, this section establishes the method of separating such traffic (referred to in this tariff as "Toll VoIP-PSTN Traffic") from the customer's traditional intrastate access traffic, so that such Toll VoIP-PSTN Traffic can be billed in accordance with the FCC Order. The term "Toll VoIP-PSTN Traffic" denotes a customer's interexchange voice traffic exchanged with the Telephone Company in Time Division Multiplexing format over Public Switched Telephone Network (PSTN) facilities, which originates and/or terminates in Internet Protocol (IP) format. "Toll VoIP-PSTN Traffic" originates and/or terminates in IP format when it originates from and/or terminates to an end user customer of a service that requires IP-compatible customer premises equipment.

2.11.2 Rating of VoIP-PSTN Traffic

The Toll VoIP-PSTN Traffic will be billed at rates equal to the Telephone Company's applicable tariffed interstate switched access rates as specified in the Telephone Company's applicable federal access tariff or the Telephone Company's applicable tariffed intrastate switched access rates as specified in the Telephone Company's applicable state access tariff, whichever is lower. Hereafter, these billed rates will be referred to in this tariff as the relevant "VoIP Rates."

ACCESS SERVICE

2. REGULATIONS (Cont'd)

2.11 Identification and Rating of VoIP-PSTN Traffic (Cont'd)

2.11.3 Calculation and Application of Percent-VoIP-Usage Factor

(C)

There is no need to determine the percentage of VoIP usage for purposes of applying VoIP Rates to terminating Toll VoIP-PSTN Traffic because intrastate and interstate terminating access rates are at parity. The Telephone Company will determine the number of originating Toll VoIP-PSTN Traffic minutes of use ("MOU") to which VoIP Rates will be applied under subsection (B), above, by applying a Percent-VoIP-Usage ("PVU") factor to the total originating intrastate access MOU received by the Telephone Company from the customer. The PVU will be derived and applied as follows:

2.11.3.A The customer will calculate and furnish to the Telephone Company a factor (the "PVU"), along with supporting documentation, representing the whole number percentage of the customer's total originating intrastate access MOU that the customer receives from the Telephone Company in the State that is originated by the Telephone Company and that originated in IP format. This PVU shall be based on information such as traffic studies, actual call detail, or other relevant and verifiable information.

2.11.3.B After the Telephone Company verifies the PVU provided by the customer, the Telephone Company will apply the PVU factor to the total originating intrastate access MOU received from the customer to determine the number of Toll VoIP-PSTN Traffic MOUs.

2.11.3.C If the customer does not furnish the Telephone Company with a PVU pursuant to the preceding paragraph 1, the Telephone Company will utilize a PVU equal to zero percent (0%).

2.11.4 Initial Implementation of PVU Factor

The Telephone Company will apply the Initial PVU factor on the next bill date provided that the PVU factor and the relevant and verifiable supporting documentation described above are provided to the Telephone Company at least fifteen (15) days prior to the next bill date. A factor received less than fifteen (15) days before the next bill date, will be applied on the bill date following the next bill date unless otherwise agreed to by the Telephone Company and the customer. Otherwise, it will set the initial PVU equal to 0% as specified in subsection (C)(3) above.

(C)

ACCESS SERVICE

2. **REGULATIONS** (Cont'd)

2.11 Identification and Rating of VoIP-PSTN Traffic (Cont'd)

2.11.5 PVU Factor Updates

The customer may update the PVU factor quarterly using the method set forth in subsection 2.11.3.A, above. If the customer chooses to submit such updates, it shall forward to the Telephone Company, no later than 15 days after the first day of January, April, July and/or October of each year, a revised PVU factor based on data for the prior three months, ending the last day of December, March, June and September, respectively. The revised PVU factor will apply prospectively and serve as the basis for billing until superseded by a new PVU.

2.11.6 PVU Factor Verification

Not more than four times in any year, the Telephone Company may ask the customer to verify the PVU factor furnished to the Telephone Company. The party so requested shall comply, and shall reasonably provide the records and other information used to determine the PVU factors.

The customer-provided PVU and supporting documentation for the factor shall be based on information that is verifiable by the Telephone Company, including but not limited to the number of the customer's retail VoIP subscriptions in the state (*e.g.* as reported on FCC Form 477), traffic studies, actual call detail or other relevant and verifiable information.

ACCESS SERVICE

3. **ORDERING OPTIONS FOR SWITCHED AND SPECIAL ACCESS SERVICE**

3.1 General

This section sets forth the regulations and order related charges for Access Service Requests (ASR) for Switched Access Service, as defined in this tariff. These charges are in addition to other applicable charges set forth in other sections of this tariff.

3.1.1 Ordering Conditions

All services offered under this tariff will be ordered using an ASR. The format and terms of the ASR will be as specified in the industry Access Service Order Guidelines, unless otherwise specified herein. A Customer may order any number of services of the same type and between the same premises on a single ASR. All details for services for a particular order must be identical.

The Customer shall provide all information necessary for the Company to provide and bill for the requested service. When placing an order for Access Service, the Customer shall provide the following minimum information:

- 3.1.1.A Customer name and premises address(es);
- 3.1.1.B Billing name and address (when different from Customer name and address); and
- 3.1.1.C Customer contact name(s) and telephone number(s) for the following provisioning activities: order negotiation, order confirmation, interactive design, installation and billing.

The order date (Application Date) is the date on which the Company receives a firm commitment and sufficient information from the Customer to allow processing of the ASR. The Customer is advised of the critical events in the provisioning process, the Application Date, the Plant Test Date and the Service Commencement Date, at the time the Company gives the Customer a Firm Order Confirmation (FOC).

ACCESS SERVICE

3. ORDERING OPTIONS FOR SWITCHED AND SPECIAL ACCESS SERVICE (Cont'd)

3.1 General (Cont'd)

3.1.2 Provision of Other Services

Unless otherwise specified herein, all services offered under this tariff shall be ordered with an ASR.

With the agreement of the Company, other services may subsequently be added to the ASR at any time, up to and including the service date for the Access Service. When added subsequently, charges for a Design Change charge will apply when an engineering review is required.

Additional Engineering is not an ordering option, but will be applied to an ASR when the Company determines that Additional Engineering is necessary to accommodate a Customer request. Additional Engineering will be provided by the Company at the request of the Customer only when a Customer requests additional technical information after the Company has already provided the technical information included on the Design Layout Report as set forth herein. The Customer will be notified when Additional Engineering is required, and will be furnished with a written statement setting forth the justification for the Additional Engineering as well as an estimate of the charges. If the Customer agrees to the Additional Engineer, a firm order will be established. If the Customer does not want the service or facilities after being notified by the Company that Additional Engineering is required, the Customer may cancel the order and no charges will apply. Once a firm order has been established, the total charge to the Customer for the Additional Engineering may not exceed the original estimated amount by more than ten (10) percent.

3.2 Access Order

An ASR is required by the Company to provide a Customer Switched Access Service, as described herein. An ASR will be required for each new similar service arrangement or group of common circuits.

When a Customer requests new or additional Switched Access Service, one or more ASRs may be required. The number of orders required is dependent on the type of services and/or facilities being requested.

ACCESS SERVICE

3. ORDERING OPTIONS FOR SWITCHED AND SPECIAL ACCESS SERVICE (Cont'd)

3.2 Access Order (Cont'd)

When placing an order for either Switched or Special Access Service, as described in sections 4 and 9, respectively, the Customer shall provide all standard ASR ordering information as specified in industry guidelines. The Customer will also be required to provide this information to order additional service for an existing service type. For new Customers ordering Tandem Connect Service, the Customer will only be required to complete an ASR for installation of new service. The Access Order charges are found in Section 12.1.1.

3.2.1 Access Service Date Intervals

Access Service is provided with one of the following Service Date intervals:

- Standard Interval
- Negotiated Interval

The Company will provide an FOC and the Service Commencement Date contingent on the ASR being complete as received. To the extent the Access Service can be made available with reasonable effort, the Company will provide the Access Service in accordance with the Customer's requested interval, subject to the following conditions:

3.2.1.A Standard Interval

The Standard Interval for Switched Service will be published.

3.2.1.B Negotiated Interval

The Company will negotiate a Service Date interval with the Customer when:

- 3.2.1.B.(1) The Customer requests a Service Date before or beyond the applicable Standard Interval Service Date; or
- 3.2.1.B.(2) There is no existing facility connecting the Customer premises with the Company; or
- 3.2.1.B.(3) The Customer requests a service that is not considered by the Company to be a standard service offering (for example, if Additional Engineering is required to complete the order); or

ACCESS SERVICE

3. ORDERING OPTIONS FOR SWITCHED AND SPECIAL ACCESS SERVICE (Cont'd)

3.2 Access Order (Cont'd)

- 3.2.1.B.(4) The Company determines that Access Service cannot be installed within the Standard Interval.

The Company will offer a Service Date based on the type and quantity of Access Service the Customer has requested. The Negotiated Interval may not exceed by more than six months the Standard Interval Service Date, or, when there is no Standard Interval, the Company offered Service Date.

3.2.2 Access Service Request Modifications

The Customer may request a modification of its ASR prior to the Service Commencement Date. All modifications must be in writing using the industry ASR process. The Company, in its sole discretion, may accept a verbal modification from the Customer. The Company will make every effort to accommodate a request modification when it is able to do so with the normal work force assigned to complete such an order within normal business hours. Charges for access Service Order modification will apply as set forth below, on a per occurrence basis.

3.2.2.A Service Commencement Date Changes

ASR service dates for the installation of new services or rearrangement of existing services may be changed, but the new service date may not exceed the original Service Commencement Date by more than 30 calendar days. When, for any reason, the Customer indicates that service cannot be accepted for a period not to exceed 30 calendar days, and the Company accordingly delays the start of service, a Service Date Change Charge will apply. In addition, when the Customer submits a request for a Service Date Change that is less than five (5) business days from the date of notification by the Customer, a Service Date Change Charge and an Expedite Charge will apply. No Expedite Charge will apply if the Customer requests a Service Date Change that is more than five (5) business days from the date of request by the Customer, but earlier than the original requested Service Commencement Date.

ACCESS SERVICE

3. **ORDERING OPTIONS FOR SWITCHED AND SPECIAL ACCESS SERVICE** (Cont'd)

3.2 Access Order (Cont'd)

If the customer-requested service date is more than 30 calendar days after the original service date, the order will be canceled by the Company on the 31st day. Appropriate cancellation charges will be applied. If the Customer still requires the service, the Customer must place a new ASR with the Company.

The Service Date Change Charge will apply on a per order, per occurrence basis for each service date change. The applicable charges are set forth in Section 12.1.2.

3.2.2.B Design Change Charge

The Customer may request a Design Change to the Service Ordered. A Design Change is any change to an ASR which requires an Engineering Review. An Engineering Review is a review by Company personnel of the Service Ordered and the requested changes to determine what change(s) in the design, if any, are necessary to meet the Customer's request. Design Changes include such changes as the addition or deletion of optional features or functions, a change in the type of Transport Termination (Switched Access only) or type of Channel interface. Any other changes are not considered Design Changes for the purpose of this subsection, and will require issuance of a new ASR and the cancellation of the original ASR. The appropriate cancellation charges will apply in these instances.

The Design Change Charge will apply on a per order, per occurrence basis, for each order requiring a Design Change. The applicable charges, as set forth in Section 12.1.3 are in addition to any Service Date Change Charges that may apply.

ACCESS SERVICE

3. **ORDERING OPTIONS FOR SWITCHED AND SPECIAL ACCESS SERVICE** (Cont'd)

3.2 Access Order (Cont'd)

3.2.2.C Expedited Order Charge

When placing an Access Order for service(s) for which a Standard Interval exists, a Customer may request a Service Commencement Date that is earlier than the Standard Interval Service Date, in which case an Expedite Charge will apply. The Expedite Charge will not apply if the new Service Commencement Date is more than five (5) days from the date of the request to the Company of the expedited order request. The request for an earlier service date may be received from the Customer prior to its issuance of an ASR, or after the ASR has been issued but prior to the service date. The Company has the exclusive right to accept or deny the Expedite Order request. However, if, upon reviewing availability of equipment and scheduled work load, the Company agrees to provide service on an expedited basis and the Customer accepts the Company's proposal, an Expedite Charge will apply.

If the Company is subsequently unable to meet an agreed upon expedited service date, the Expedite Charge will not apply.

In the event the Company provides service on an expedited basis at the Customer's request, and the Customer delays service or is not ready for delivery of service at the time of installation, a Service Date Change Charge will apply in addition to the Expedite Charge.

In the event that the Customer cancels an expedite request, the Expedite Charge will be added to any applicable Cancellation Charge specified herein.

In the event that the Customer requests a Service Date Change after the Company has received the original expedite request, the Expedite Charge will still apply.

An Expedite Charge will not be applied to orders expedited for Company reasons.

ACCESS SERVICE

3. **ORDERING OPTIONS FOR SWITCHED AND SPECIAL ACCESS SERVICE** (Cont'd)

3.2 Access Order (Cont'd)

If costs other than additional administrative expenses are to be incurred when the Access Order is expedited, the regulations and charges for Special Construction as set forth in this tariff will apply.

The Expedited Order Charge will apply on a per order, per occurrence basis, as specified in Section 12.1.4.

3.2.3 Cancellation of an Access Service Request

A Customer may cancel an ASR for the installation of Switched Access Service at any time prior to notification by the Company that service is available for the Customer's use. The cancellation date is the date the Company receives written or verbal notice from the Customer that the order is to be canceled. The verbal notice must be followed by written confirmation within ten (10) days. A Customer may negotiate an extension of a service date of an ASR for installation of new service or rearrangement of existing service, in which case a Service Date Change Charge will apply. However, the new service date cannot exceed the originally established service date by more than 30 calendar days. On the 31st day beyond the original service date, the ASR will be canceled and the appropriate Cancellation Charge will be applied.

Except as specified herein, Cancellation Charges will apply as specified in Section 12.1.5.

If the cancellation occurs prior to the Company's receiving the ASR, no charges shall apply.

If the Company misses a service date for a Standard or Negotiated Interval Access Order by more than 30 days due to circumstances such as acts of God, governmental requirements, work stoppages and civil commotion, the Company shall not be liable for such delay and the Customer may cancel the ASR without incurring cancellation charges.

3.2.4 Minimum Period of Service

The minimum period for which Access Service is provided and for which charges are applicable is one month.

ACCESS SERVICE

3. ORDERING OPTIONS FOR SWITCHED AND SPECIAL ACCESS SERVICE (Cont'd)

3.2 Access Order (Cont'd)

3.2.4.A The following changes will be treated as a discontinuance of the existing service and a request for installation of a new service. All associated Non-Recurring Charges will apply for the new service, and a new minimum period will be established:

- 3.2.4.A.(1) A change in the identity of the Customer of record;
- 3.2.4.A.(2) A move by the Customer to a different building;
- 3.2.4.A.(3) A change in type of service;
- 3.2.4.A.(4) A change in Switched Access Service Interface (i.e., DS-1 or DS-3);
- 3.2.4.A.(5) A change in Switched Access Service Traffic Type.

3.2.4.B When Access Service is disconnected prior to the expiration of the minimum period, charges are applicable for the balance of the minimum period. The Minimum Period Charge for monthly billed services will be determined as follows:

For Switched Access Service, the charge for a month or fraction thereof is the applicable minimum monthly charge for the capacity made available to the Customer.

All applicable Non-Recurring Charges for the service will be billed in addition to the Minimum Period Charge.

When Access Service is disconnected prior to the expiration of the minimum period, charges are applicable for the balance of the minimum period. The Minimum Period Charge for monthly billed services will be determined as follows:

For Switched Access Service, the charge for a month or fraction thereof is the applicable minimum monthly charge for the capacity made available to the Customer.

All applicable Non-Recurring Charges for the service will be billed in addition to the Minimum Period Charge.

ACCESS SERVICE

4. SWITCHED ACCESS SERVICE

4.1 General

Switched Access Service, which is available to Customers for their use in furnishing their services to end users, provides a two-point communications path between a Customer's premises and an end user's premises. It provides for the use of common terminating, switching and transport facilities. Switched Access Service provides the ability to originate calls from an end user's premises to a Customer's premises, and to terminate calls from a Customer's premises location to an end user's premises.

4.2 Provision and Description of Switched Access Service Arrangements

Switched Access Service is provided in the following service types:

4.2.1 Feature Group D (FGD) Access

FGD Access, which is available to all Customers, is provisioned at the DS-1 level and provides trunk-side access to Company Local Switching center switches, with an associated uniform 101XXXX Access Code for the Customer's use in originating and terminating communications.

Basic FGD service will be provided with SS7 (Multi-Frequency In Band Signaling is also available as a Common Switching Option for Feature Group D). End users of the Customer's service may also originate calls to certain FGD Access Customers without dialing the 101XXXX Access Code if the end user is presubscribed, as described herein.

The Access Code for FGD switching is a uniform Access Code of the form 101XXXX. A single Access Code will be the assigned number of all FGD access provided to the Customer by the Company. No Access Code is required for calls to a Customer over FGD Switched Access Service if the end user's telephone exchange service is arranged for Presubscription to that Customer, as set forth herein.

ACCESS SERVICE

4. SWITCHED ACCESS SERVICE (Cont'd)

4.2 Provision and Description of Switched Access Service Arrangements (Cont'd)

4.2.1 Feature Group D (FGD) Access (Cont'd)

Where no Access Code is required, the number dialed by the Customer's end user shall be a seven or ten digit number for calls in the North America Numbering Plan (NANP), except for 00-dialed calls which are routed to the predesignated Customer. For international calls outside the NANP, a seven- to twelve-digit number may be dialed. The form of the numbers dialed by the Customer's end user is NXX-XXXX, 0+ or 1 + NXX-XXXX, NPA + NXX-XXXX, 0+ or 1 + NPA + NXX-XYCXX, and, when the Local Switching Center is equipped for International Direct Distance Dialing (IDDD), 01 + CC + NN or 011 + CC + NN.

When the 101XXXX Access Code is used, FGD switching also provides for dialing the digit 0 (zero) for access to the Customer's operator, 911 for access to the Company's emergency service or the end-of-dialing digit (#) for cut-through access to the Customer's premises.

In addition, end users may originate calls by dialing the 950-XXXX Access Code specific to a particular Interexchange Carrier, provided that the Interexchange Carrier has subscribed to the Company's Feature Group D with 950 Access (Feature Group B) Common Switching Optional Feature. If the end user is presubscribed to that Interexchange Carrier, no Access Code is necessary.

ACCESS SERVICE

4. SWITCHED ACCESS SERVICE (Cont'd)

4.2 Provision and Description of Switched Access Service Arrangements (Cont'd)

4.2.2 Manner of Revision

Trunks used for Switched Access Service may be configured for one-way (either originating only or terminating only) or for two-way directionally. It is the Customer's responsibility to order a sufficient number of trunks of each type in order to meet its desired grade of service objective.

4.2.3 Rate Categories

Certain of the rate elements included within the Company's offering of Intrastate Switched Access Services have been revised to match the federal requirement that the company's rates must be no higher than the competing ILEC (Verizon South, Inc.) rates effective June 21, 2004. The new rates are reflected in Section 12.

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Following is a description of the rate categories for the facilities required to provide Switched Access Services to the customer.

4.2.3.A Local Transport

The Local Transport rate category establishes the charges related to the transmission and tandem switching facilities between the customer-designated premises and the Company's Local Switching equipment, where the customer's traffic is switched to originate or terminate the customer's communications.

Local Transport is provided at the rates and charges set forth in 12.2.1.

The mileage rate element is determined by the Vertical, and Horizontal Coordinates (V&H) method, as set forth on the National Exchange Carrier Association Tariff, F.C.C. No. 4. When the calculation results in a fraction of a mile, the total is rounded up to the next whole mile before applying the rate.

ACCESS SERVICE

4. SWITCHED ACCESS SERVICE (Cont'd)

4.2 Provision and Description of Switched Access Service Arrangements (Cont'd)

4.2.3 Rate Categories (Cont'd)

4.2.3.A.(1) Network Blocking Charge

The customer will be notified by the Telephone Company to increase its capacity (busy hour minutes of capacity or quantities of trunks) when excessive trunk group blocking occurs on groups carrying Feature Group D traffic and the measured access minutes for that hour exceed the capacity purchased. Excessive trunk group blocking occurs when the blocking thresholds stated below are exceeded. They are predicated on time consistent, hourly measurements over a 30 day period excluding Saturdays, Sundays and national holidays. If the order for additional capacity has not been received by the Telephone Company within 15 days of the notification, the Telephone Company will bill the customer, at the rate set forth in Section 12 following, for each overflow in excess of the blocking threshold when (1) the average "30 days period" overflow exceeds the threshold level for any particular hour and (2) the "30 day period" overflow exceeds the threshold level for any particular hour and (2) the "30 days period" measured average originating or two-way usage for the same clock hour exceeds the capacity purchased.

Blocking Thresholds

<u>Trunks in Service</u>	<u>1%</u>	<u>1/2%</u>	
1-2		7.0%	4.5%
3-4		5.0%	3.5%
5-6		4.0%	2.5%
7 or greater	3.0%	2.0%	

The 1% blocking threshold is for transmission paths carrying traffic direct (without an alternate route) between an end office and a customer's premises. The 1/2% blocking threshold is for transmission paths carrying first routed traffic between an end office and a customer's premises via an access tandem.

ACCESS SERVICE

4. SWITCHED ACCESS SERVICE (Cont'd)

4.2 Provision and Description of Switched Access Service Arrangements (Cont'd)

4.2.3 Rate Categories (Cont'd)

4.2.3.B. End Office

The End Office rate category includes the Local Switching and 800 Data Base Query rate elements.

4.2.3.B.(1) Local Switching

The Local Switching rate element establishes the charges related to the use of end office switching equipment, the terminations in the end office of end user lines, and the terminations of calls at the Company Intercept Operators or recordings.

Rates for Local Switching are set forth in 12.2.2. following.

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ACCESS SERVICE

4. SWITCHED ACCESS SERVICE (Cont'd)

4.2 Provision and Description of Switched Access Service Arrangements (Cont'd)

4.2.3 Rate Categories (Cont'd)

4.2.3.B. End Office (Cont'd)

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ACCESS SERVICE

4. SWITCHED ACCESS SERVICE (Cont'd)

4.2 Provision and Description of Switched Access Service Arrangements (Cont'd)

4.2.3 Rate Categories (Cont'd)

4.2.3.B. End Office (Cont'd)

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ACCESS SERVICE

4. SWITCHED ACCESS SERVICE (Cont'd)

4.2 Provision and Description of Switched Access Service Arrangements (Cont'd)

4.2.3 Rate Categories (Cont'd)

4.2.3.B. End Office (Cont'd)

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ACCESS SERVICE

4. SWITCHED ACCESS SERVICE (Cont'd)

4.2 Provision and Description of Switched Access Service Arrangements (Cont'd)

4.2.3 Rate Categories (Cont'd)

4.2.3.B. End Office (Cont'd)

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ACCESS SERVICE

4. SWITCHED ACCESS SERVICE (Cont'd)

4.2 Provision and Description of Switched Access Service Arrangements (Cont'd)

4.2.3 Rate Categories (Cont'd)

4.2.3.B. End Office (Cont'd)

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ACCESS SERVICE

4. SWITCHED ACCESS SERVICE (Cont'd)

4.2 Provision and Description of Switched Access Service Arrangements (Cont'd)

4.2.3 Rate Categories (Cont'd)

4.2.3.B. End Office (Cont'd)

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ACCESS SERVICE

4. SWITCHED ACCESS SERVICE (Cont'd)

4.2 Provision and Description of Switched Access Service Arrangements (Cont'd)

4.2.3 Rate Categories (Cont'd)

4.2.3.B. End Office (Cont'd)

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ACCESS SERVICE

4. SWITCHED ACCESS SERVICE (Cont'd)

4.2 Provision and Description of Switched Access Service Arrangements (Cont'd)

4.2.3 Rate Categories (Cont'd)

4.2.3.B. End Office (Cont'd)

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ACCESS SERVICE

4. SWITCHED ACCESS SERVICE (Cont'd)

4.2 Provision and Description of Switched Access Service Arrangements (Cont'd)

4.2.3 Rate Categories (Cont'd)

4.2.3.B. End Office (Cont'd)

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ACCESS SERVICE

4. SWITCHED ACCESS SERVICE (Cont'd)

4.2 Provision and Description of Switched Access Service Arrangements (Cont'd)

4.2.3 Rate Categories (Cont'd)

4.2.3.B. End Office (Cont'd)

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ACCESS SERVICE

4. SWITCHED ACCESS SERVICE (Cont'd)

4.2 Provision and Description of Switched Access Service Arrangements (Cont'd)

4.2.3 Rate Categories (Cont'd)

4.2.3.B. End Office (Cont'd)

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ACCESS SERVICE

4. SWITCHED ACCESS SERVICE (Cont'd)

4.2 Provision and Description of Switched Access Service Arrangements (Cont'd)

4.2.3.C. Where facilities permit, the Company will, at the option of the Customer, provide the following chargeable optional features.

4.2.3.C.(1) 800/888 Series Data Base Access Service

Series Data Base Access Service is provided to all customers in conjunction with FGD switched access service. When a 1+800+NXX-XXXX call is originated by an end user, the Company will utilize the Signaling System 7 (SS7) network to query an 800/888 series data base to identify the customer to whom the call will be delivered and provide vertical features based on the dialed ten digits. The call will then be routed to the identified customer over FGD switched access.

A Basic or Vertical Feature Query charge, as set forth in 12.2.2. following, is assessed for each

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query launched to the data base which identifies the customer to whom the call will be delivered. The Basic Query provides the identification of the customer to whom the call will be delivered and includes area of service routing which allows routing of 800/888 series type calls by companies to different interexchange carriers based on the Local Access Transport Area (LATA) in which the call originates. The Vertical Feature Query provides the same customer identification as the basic query and vertical features which may include: (1) call validation, (ensuring that calls originate from subscribed service areas); (2) POTS translation of 800/888 series numbers; (3) alternate POTS translation (which allows subscribers to vary the routing of 800/888 series type calls based on factors such as time of day, place or origination of the call, etc.); and (4) multiple carrier routing [which allows subscribers to route to different carriers based on factors similar to those in (3)].

ACCESS SERVICE

4. SWITCHED ACCESS SERVICE (Cont'd)

4.2 Provision and Description of Switched Access Service Arrangements (Cont'd)

4.2.3.D. Common Channel Signaling/Signaling System 7 Network Connection Service (CCSNC)

Common Channel Signaling/Signaling System 7 (CCS/SS7) Network Connection Service (CCSNC), which is available with Feature Group C and D, where technically feasible provides a signaling path between a customer's designated Signaling Point of Interface (SPOI) and a Signaling Transfer Point (STP). This service provides customers with the use of a two-way signaling path for accessing information necessary for the completion of their end user's calls.

CCS/SS7 Networks Connection Service is comprised of two parts; a Signaling Network Access Link (SNAL, consisting of Signaling Mileage Facility, Signaling Mileage Termination and Signaling Entrance Facility) and a Signaling Transfer Point (STP) Port. The SNAL is provided as a dedicated 56 kbps out-of-band signaling connection between the customer's SPOI and the STP Port on the STP.

The CCS/SS7 Networks Connection Service is provisioned by a mated pair of STPs as described in Technical Reference TR-TSV 000905 in order to ensure networks availability and reliability. The Telephone Company shall not be held liable for service outages if the customer employs technology related to the interconnection of signaling networks that do not adhere to generally accepted industry technical standards.

When CCS/SS7 Network Connection service is provisioned for use with SS7 Signaling, interconnection between signaling networks must occur at an STP.

Rates and charges for the CCS/SS7 Network Connection STP Ports and Signaling Network Access Links are contained in 12.2.4 following.

4.2.4 Descriptions and Application of Rate

4.2.4.A Recurring Rates

4.2.4.A.(1) Usage Rates for Switched Access Service are rates that apply on a per access minute or a per call basis. Access minute charges and per call charges are accumulated over a monthly period.

4.2.4.A.(2) Flat Rates for Switched Access Service are rates that apply on a per month per rate element basis.

ACCESS SERVICE

4. SWITCHED ACCESS SERVICE (Cont'd)

4.2 Provision and Description of Switched Access Service Arrangements (Cont'd)

4.2.4.B Nonrecurring Charges

Nonrecurring charges are one-time charges that apply for a specific work activity (i.e., installation or change to an existing service). The types of nonrecurring charges that apply for Switched Access Service are: installation of service and service rearrangements. These charges are in addition to the Access Order Charge as specified in 12.1.1 following.

4.2.4.B.(1) Installation of Service

A Local Transport nonrecurring installation charge, as set forth in 12.2.3.A following, will be applied per line or trunk installed.

A non-recurring Interim NXX translation charge, as set forth in 12.2.3.B following, will apply per order.

Service Rearrangements

All changes to existing services other than changes involving administrative will be treated as a discontinuance of the existing service and an installation of a new service. The nonrecurring charge described in (1) preceding will apply for this work activity.

For conversion of FGD trunks from multifrequency address signaling to SS7 signaling or from SS7 signaling to multifrequency address signaling, nonrecurring charges will apply as set forth in 12.2.2.C.

ACCESS SERVICE

4. SWITCHED ACCESS SERVICE (Cont'd)

4.2 Provision and Description of Switched Access Service Arrangements (Cont'd)

4.2.5 Billing Validation Service

The Company shall arrange to have its billing validation data stored in one of the existing Line Information Databases (LIDBs). It will be the responsibility of the Customer to identify this database through established industry procedures, and to query the billing validation data in the LIDB. Based on the received query information, the LIDB will respond with an SS7 formatted confirmation of validity or denial for the requested billing option. Access in LIDB provides Customers with potential toll fraud detection.

The LIDB will contain a record for every working line number and Billed Number Group served by the Company.

The Company will update the LIDB information on a daily basis.

LIDB service is provided on an on-line, call-by-call basis. Company data accessed from the LIDB shall remain the sole property of the Company, and may not be stored or reproduced by the Customer for any reason.

The Company will have procedures in place to deactivate billing validation data in the event that it is being used fraudulently.

4.2.6 Acceptance Testing

At no additional charge, the Company will, at the Customer's request, cooperatively test, at the time of the installation, the following parameters: loss, C-notched noise, C-message noise, 3-tone slope, d.c. continuity and operational signaling.

4.2.7 Ordering Options and Conditions

Access Service is ordered under the Access Order provisions set forth in Section 3.2.

ACCESS SERVICE

4. SWITCHED ACCESS SERVICE (Cont'd)

4.3 Obligations of the Company

In addition to the obligations of the Company set forth in other sections of this tariff, the Company has certain other obligations concerning the provision of Switched Access service. These obligations are as follows:

4.3.1 Network Management

The Company will administer its network to ensure the provision of acceptable service levels to all telecommunications users of the Company's network Services. Generally, service levels are considered acceptable only when both end users and Customers are able to establish connections with little or no delay encountered within the Company network. The Company reserves the right to apply protective controls, (i.e., those actions, such as call gapping, which selectively cancel the completion of traffic), over any traffic carried over its network, including that associated with a Customer's Switched Access Service. Generally such protective measures would only be taken as a result of occurrences such as failure or overload of Company or Customer facilities, natural disasters, mass calling or national security demands. The Customer will notify the Company of anticipated peaked services as stated below. Based on the information provided, the Company will work cooperatively with the Customer to determine the appropriate level of control. In the event that the protective controls applied by the Company result in the complete loss of service by the Customer, the Customer will be granted a credit allowance for service interruption as set forth in 2.6.

When a Customer uses the Company's facilities to offer services for which a substantial call volume or peaked service is expected during a short period of time, the Customer must notify the Company at least 24 hours in advance of each peak period. For events scheduled during weekends or holidays, the Company must be notified no later than 5:00 p.m. local time the prior business day. Notification should include the nature, time, duration, and frequency of the event, an estimated call volume, and the NPA NXX and line number(s) to be used. On the basis of the information provided, the Company may invoke network management controls if required to reduce the probability of excessive network congestion. The Company will work cooperatively with the Customer to determine the appropriate level of such control. Failure to provide prescribed notification may result in Customer caused network congestion, which could result in discontinuance of service.

ACCESS SERVICE

5. SPECIAL CONSTRUCTION

5.1 Special Construction

5.1.1 Basis for Rates and Charges

Rates and charges for special construction will be determined by the Company on an Individual Case Basis and based, in part, on the costs incurred by the Company and may include (1) non-recurring type charges, (2) recurring type charges, (3) termination liabilities, or (4) combinations thereof.

5.1.2 Termination Liability

To the extent that there is no other requirement for use by the Company, a termination liability may apply for facilities specially constructed at the request of the Customer.

5.1.2.A The termination liability period is the initial service term with respect to said specially constructed facilities.

5.1.2.B The amount of maximum termination liability is equal to the rates and charges established pursuant to 5.1.1 above.

5.1.2.C The applicable termination liability charge is based on the normal method for calculating the unpaid balance of a term obligation. The amount of such charge is obtained by multiplying the sum of the amounts determined as set forth in Section 5.1.2.A by a factor related to the unexpired period of liability and the discount rate for return and contingencies. This product is adjusted to reflect applicable taxes.

5.2 Individual Case Basis Arrangement

When the Company furnishes a facility or service for which a rate or charge is not specified in the Company's tariffs, charges will be determined on an Individual Case Basis. Specialized rates or charges will be made available to similarly situated Customers on a nondiscriminatory basis.

ACCESS SERVICE

6. RESERVED FOR FUTURE USE

ACCESS SERVICE

7. RESERVED FOR FUTURE USE

ACCESS SERVICE

8. RESERVED FOR FUTURE USE

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE

9.1 General

Special Access Service provides a transmission path to connect customer designated premises*, directly, or through a Telephone Company hub or hubs where bridging or multiplexing functions are performed, or to connect a customer designated premises and a WATS Serving Office, or to connect a customer designated premises to a Public Packet Data Network Service. Special Access Service includes all exchange access not utilizing Telephone Company end office switches.

The connections provided by Special Access Service can be either analog or digital. Analog connections are differentiated by spectrum and bandwidth. Digital connections are differentiated by bit rate.

9.1.1 Channel Types

There are eight types of channels used to provide Special Access Services. Each type has its own characteristics. All are subdivided by one or more of the following:

- Transmission specifications,
- Bandwidth,
- Speed (i.e., bit rate),
- Spectrum

Customers can order a basic channel and select from a list of those available transmission parameters and channel interfaces that they desire in order to meet specific communications requirements.

For purposes of ordering channels, each has been identified as a type of Special Access Service. However, such identification is not intended to limit a customer's use of the channel nor to imply that the channel is limited to a particular use. For example, if a customer's equipment is capable of transmitting voice over a channel that is identified as a Metallic Service in this tariff, there is no restriction against doing so.

* Telephone Company Centrex CO and CO-like switches and packet switches included in Public Packet Switching Network (PPSN) Service are considered to be a customer designated premises for purposes of this tariff.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.1 General (Cont'd)

9.1.1 Channel Types (Cont'd)

Following is a brief description of each type of channel:

Metallic - a channel for the transmission of low speed varying signals at rates up to 30 baud.

Telegraph Grade - a channel for the transmission of binary signals at rates of 0 to 75 baud or 0 to 150 baud.

Voice Grade - a channel for the transmission of analog signals within an approximate bandwidth of 300 to 3000 Hz.

Program Audio - a channel for the transmission of audio signals. The nominal frequency bandwidths are from 200 to 3500 Hz, from 100 to 5000 Hz, from 50 to 8000 Hz, or from 50 to 15000 Hz.

Video - a channel for the transmission of standard 525 line 60 field monochrome or National Television Systems Committee color video signal and one or two associated 5 or 15 kHz audio signals. The bandwidth is either 30 Hz to 4.5 MHz or 30 Hz to 6.6 MHz.

Digital Data - a channel for the digital transmission of synchronous serial data at rates of 2.4, 4.8, 9.6, 19.2, 56.0 or 64.0 Kbps.

High Capacity - a channel for the transmission of isochronous serial digital data at rates of 1.544, 3.152, 6.312, 44.736 or 274.176 Mbps.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.1 General (Cont'd)

9.1.1 Channel Types (Cont'd)

Detailed descriptions of each of the channel types are provided in 9.4 through 9.11 following.

The customer also has the option of ordering Voice Grade and High Capacity facilities (i.e., 1.544 Mbps, 3.152 Mbps, 6.312 Mbps, 44.736 Mbps and 274.176 Mbps) to Telephone Company hubs for multiplexing to individual channels of a lower capacity or bandwidth. Descriptions of the types of multiplexing available at the hubs, as well as the number of individual channels which may be derived from each type of facility, are set forth in 9.6 and 9.10 following. Additionally, the customer may specify optional features for the individual channels derived from the facility to further tailor the channel to meet specific communications requirements. Descriptions of the optional features and functions available are set forth in 9.2.1 following.

For example, a customer may order a 3.152 Mbps High Capacity channel from a customer designated premises to a Telephone Company hub for multiplexing to two 1.544 Mbps channels. The 1.544 Mbps channels may be further multiplexed at the same or a different hub to Voice Grade channels or may be extended to other customer designated premises or hubs. Optional features may be added to either the 1.544 Mbps or the Voice Grade channels.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.1 General (Cont'd)

9.1.2 Service Descriptions

For the purposes of ordering, there are seven categories of Special Access Service. These are:

Service Designator Codes

Metallic	MT
Telegraph Grade	TG
Voice	VG
Program Audio	AP
Video	TV
Digital Data	DA
High Capacity	HC

Each service consists of a basic channel to which a technical specifications package (customized or predefined), channel interface(s) and, when desired, optional features and functions are added to construct the service desired by the customer. Technical specifications packages are described in Section 11. following, optional features and functions are described in this section. Channel interfaces are described in 11.2 following.

Customized technical specifications packages will be provided where technically feasible. If the Telephone Company determines that the requested parameter specifications are not compatible, the customer will be advised and given the opportunity to change the order.

When a customized channel is ordered the customer will be notified whether Additional Engineering Charges apply. In such cases, the customer will be advised and given the opportunity to change the order.

The channel descriptions provided in 9.4 through 9.11 following, specify the characteristics of the basic channel and indicate whether the channel is provided between customer designated premises, between a customer designated premises and a Telephone Company hub where bridging or multiplexing functions are performed, between hubs, between a customer designated premises and a WATS Serving Office.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.1 General (Cont'd)

9.1.2 Service Descriptions (Cont'd)

- 9.1.2.A Information pertaining to the technical specifications packages indicates the transmission parameters that are available with each package. This information is displayed in matrices set forth in 11.2 following.
- 9.1.2.B Channel interfaces at each Point of Termination on a two-point service may be symmetrical or asymmetrical. On a multipoint service they may also be symmetrical or asymmetrical, but communications can only be provided between compatible channel interfaces. Only certain channel interfaces are compatible. These are set forth in 11.2 following, in a combination format.
- 9.1.2.C Only certain channel interface combinations are available with the predefined technical specifications packages. These are delineated in the Technical References set forth in 9.1.2.E following. When a customized channel is requested, all channel interface combinations available with the specified type of service are available with the customized channel.
- 9.1.2.D The optional features and functions available with each type of Special Access Service are described in this section. The optional features and functions information also indicates with which technical specifications packages they are available. Such information is displayed in matrices set forth in 11.2 following with the optional feature or function listed down the left side and the technical specifications package listed across the top.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.1 General (Cont'd)

9.1.2 Service Descriptions (Cont'd)

9.1.2.E All services installed will conform to the transmission specifications standards contained in this tariff or in the following Technical References for each category of service:

Metallic	TR-NPL-000336
Telegraph Grade	TR-NPL-000336
Voice Grade	TR-TSY-000335
	PUB 41004, Table 4
Program Audio	TR-NPL-000337
and associated Addendum	
Video	TR-NPL-000338
Digital Data	TR-NWT-000341
For 2.4,4.8,9.6&56.0 Kbps	BellCore Pub 62310
	(MDP-326-726)
For 19.2 Kbps	INC Bulletin CB-INC-100
For 64.0 Kbps	AT&T PUB 62310
High Capacity	TR-INS-000342
	TR-NPL-000054
	PUB 62411

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.1 General (Cont'd)

9.1.3 Service Configurations

There are two types of service configurations over which Special Access Services are provided: two-point service and multipoint service.

9.1.3.A Two-Point Service

A two-point service connects two customer designated premises, either on a directly connected basis or through a hub where multiplexing functions are performed, or a customer designated premises and a wire center equipped for Frame Relay Access Service, or a customer designated premises and a WATS Serving Office (WSO).

Applicable rate elements are:

- Channel Terminations
- Channel Mileage (as applicable)
- Optional Features and Functions (when applicable)

ACCESS SERVICE

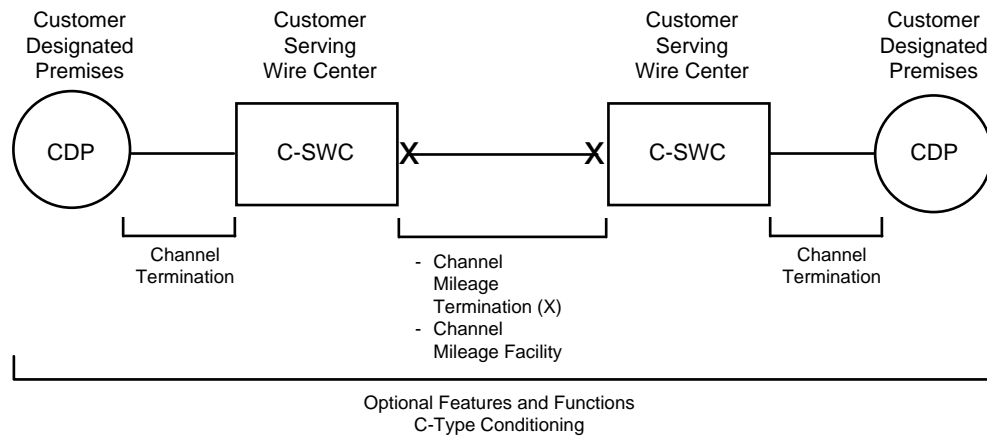
9. SPECIAL ACCESS SERVICE (Cont'd)

9.1 General (Cont'd)

9.1.3 Service Configurations (Cont'd)

9.1.3.A Two-Point Service (Cont'd)

The following diagram depicts a two-point Voice Grade service connecting two Customer Designated Premises (CDP). The service is provided with C-Type conditioning.



Applicable rate elements are:

- Channel Terminations (applicable one (1) per CDP)
- Channel Mileage
- 2 Channel Mileage Terminations plus
1 Section, Channel Mileage Facility per mile
- C-Type Conditioning Optional Feature

ACCESS SERVICE

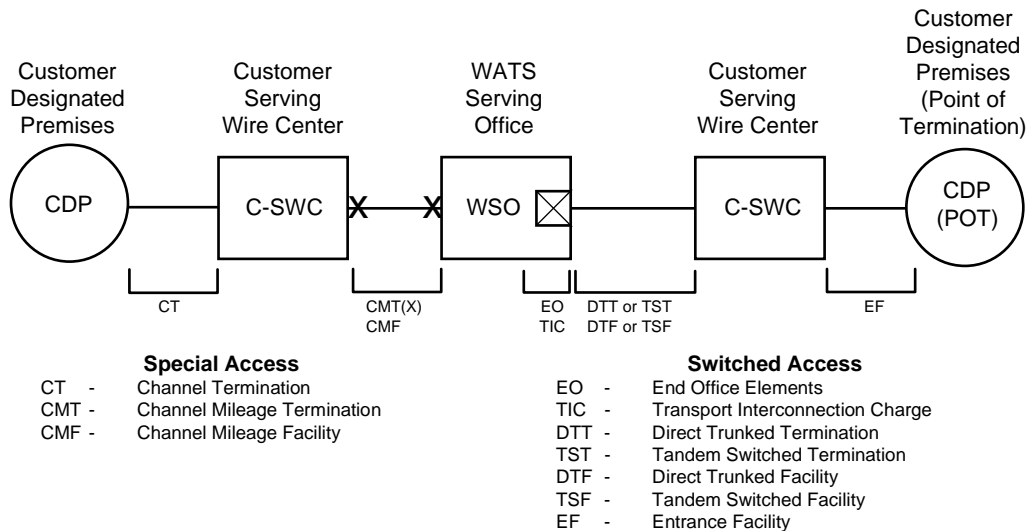
9. SPECIAL ACCESS SERVICE (Cont'd)

9.1 General (Cont'd)

9.1.3 Service Configurations (Cont'd)

9.1.3.A Two-Point Service (Cont'd)

The following diagram depicts a two-point Voice Grade service connecting a customer designated premises to a WATS serving office.



Applicable rate elements for Special Access are:

- Channel Termination
- Channel Mileage
- 2 Channel Mileage Terminations plus
- 1 Section, Channel Mileage Facility per mile
- Special Access Surcharge*

* May not apply if exemption certification is provided.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.1 General (Cont'd)

9.1.3 Service Configurations (Cont'd)

9.1.3.B Multipoint Service

Multipoint service connects three or more customer designated premises through one or more Telephone Company hubs. Only certain types of Special Access Service are provided as multipoint service. These are so designated in the descriptions for the appropriate channel.

The channel between hubs (i.e., bridging locations) on a multipoint service is a mid-link. There is no limitation on the number of mid-links available with a multipoint service. However, when more than three mid-links in tandem are provided the quality of the overall service may be degraded.

Multipoint service utilizing a customized technical specifications package, as set forth in 9.1.2 preceding and 11.2 following, will be provided when technically possible. If the Telephone Company determines that the requested characteristics for a multipoint service are not compatible, the customer will be advised and given the opportunity to change the order.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.1 General (Cont'd)

9.1.3 Service Configurations (Cont'd)

9.1.3.B Multipoint Service

When ordering, the customer will specify the desired bridging hub(s). NATIONAL EXCHANGE CARRIER ASSOCIATION TARIFF F.C.C. NO. 4 identifies serving wire centers, hub locations and the type of bridging functions available.

Applicable Rate Elements are:

- Channel Terminations (one per customer designated premises)
- Channel Mileage (as applicable between the serving wire center for each customer designated premises and the hub and between hubs).
- Bridging
- Additional Optional Features and Functions (when applicable).

Example: Voice Grade multipoint service connecting four customer designated premises (CDP) via two customer specified bridging hubs.

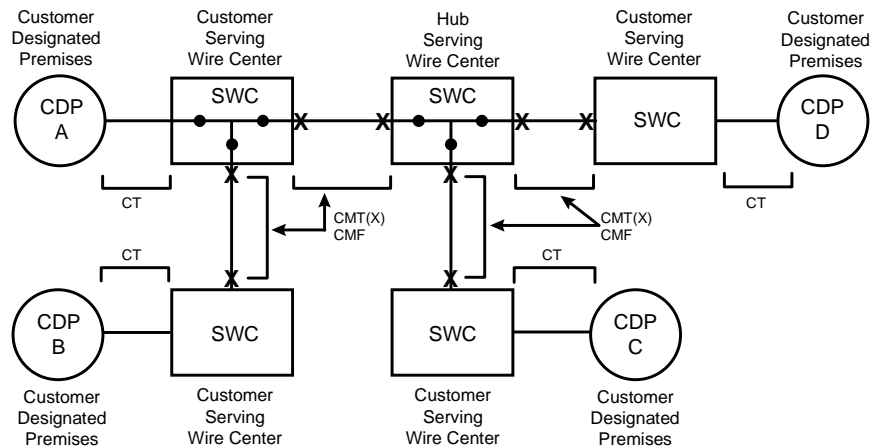
ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.1 General (Cont'd)

9.1.3 Service Configurations (Cont'd)

9.1.3.B Multipoint Service (Cont'd)



CT - Channel Termination
CMT - Channel Mileage Termination
CMF - Channel Mileage Facility
o - Bridging Port

Applicable rate elements are:

- Channel Terminations (4 applicable)
- Channel Mileage
2 Channel Mileage Terminations per Channel
Mileage Facility Section for a total of 8, plus
4 Sections, Channel Mileage Facility per mile
- Bridging Optional Feature (6 applicable, i.e., each bridge port)

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.1 General (Cont'd)

9.1.4 Alternate Use

Alternate Use occurs when a service is arranged by the Telephone Company so that the customer can select different types of transmission at different times. A customer may use a service in any privately beneficial manner. However, where technical or engineering changes are required to effectuate an alternate use, the Telephone Company will make such special arrangements available on an individual case basis.

The arrangement required to transfer the service from one operation to the other (i.e., the transfer relay and control leads) will be rated and provided on an individual case basis and filed in Section 12. following, Specialized Service or Arrangements. The customer will pay the stated tariff rates for the Access Service rate elements for the service ordered [i.e., Channel Terminations, Channel Mileage (as applicable) and Optional Features and Functions (if any)].

9.1.5 Special Facilities Routing

A customer may request that the facilities used to provide Special Access Service be specially routed. The regulations, rates and charges for Special Facilities Routing (i.e., Avoidance, Diversity and Cable-Only) are set forth in Section 12. following.

9.1.6 Design Layout Report

At the request of the customer, the Telephone Company will provide to the customer the make-up of the facilities and services provided under this tariff as Special Access Service to aid the customer in designing its overall service. This information will be provided in the form of a Design Layout Report.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.1 General (Cont'd)

9.1.7 Acceptance Testing

At no additional charge, the Telephone Company will, at the customer's request, cooperatively test the following at the time of installation:

9.1.7.A For Voice Grade analog services, the acceptance test will include tests for loss, 3-tone slope, DC continuity, operational signaling, C-notched noise, and C-message noise when these parameters are applicable and specified in the order of service. Additionally, for Voice Grade services, a balance (improved loss) test will be made if the customer has ordered the improved loss optional feature.

9.1.7.B For other analog services (i.e., Metallic, Telegraph, Program Audio, and Video) and for digital services (i.e., Digital Data and High Capacity), acceptance tests will include tests applicable to the service as specified by the customer in the order for service.

In addition to the above tests, Additional Cooperative Acceptance Testing for Voice Grade service to test other parameters is available at the customer's request. All test results will be made available to the customer upon request.

9.1.8 Ordering Options and Conditions

Special Access Service is ordered under the Access Order provisions set forth in Section 3. preceding. Also included in that section are other charges which may be associated with ordering Special Access Service (e.g., Service Date Change Charges, Cancellation Charges, etc.).

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.2 Rate Regulations

This section contains the specific regulations governing the rates and charges that apply for Special Access.

9.2.1 Rate Categories

There are three basic rate categories which apply to Special Access Service:

- Channel Terminations (described in 9.2.1(A) following)
- Channel Mileage (described in 9.2.1(B) following)
- Optional Features and Functions (described in 9.2.1(C) following).

9.2.1.A Channel Terminations

The Channel Termination rate category recovers the costs associated with the communications path between a customer designated premises and the serving wire center of that premises. Included as part of the Channel Termination is a standard channel interface arrangement which defines the technical characteristics associated with the type of facilities to which the access service is to be connected at the Point of Termination (POT) and the type of signaling capability, if any. The signaling capability is provided as an optional feature as set forth in 9.2.1.C following.

One Channel Termination charge applies per customer designated premises at which the channel is terminated. This charge will apply even if the customer designated premises and the serving wire center are collocated in a Telephone Company building.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.2 Rate Regulations (Cont'd)

9.2.1 Rate Categories (Cont'd)

9.2.1.A Channel Terminations (Cont'd)

For DS3 High Capacity Service, the Channel Termination rates are made up of the DS3 Capacity Interface rate and the DS3 Channel Installed rate. The Capacity Interface rate is dependent upon the capacity ordered (i.e., Capacity Interface of 1, 3, 6 or 12) and is applicable at each customer designated premises. The capacity ordered is the maximum number of DS3 services that can be terminated on a given service at the customer designated premises (e.g., a capacity of 3 can terminate 1, 2, or 3 DS3 services). One DS3 Channel Installed rate applies per customer designated premises at which the channel is terminated for each DS3 channel that is ordered. These charges will apply even if the customer designated premises and the serving wire center are collocated in a Telephone Company building.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.2 Rate Regulations (Cont'd)

9.2.1 Rate Categories (Cont'd)

9.2.1.B Channel Mileage

The Channel Mileage rate category recovers the costs associated with the end office equipment and the transmission facilities between the serving wire centers associated with two customer designated premises, between a serving wire center associated with a customer designated premises and a Telephone Company hub, between two Telephone Company hubs, between a serving wire center associated with a customer designated premises and a wire center equipped for Add/Drop Multiplexing (ADM) or between two ADM equipped wire centers. Channel Mileage rates are made up of the Channel Mileage Facility rate and the Channel Mileage Termination rate.

9.2.1.B(1) Channel Mileage Facility

The Channel Mileage Facility rate recovers the per mile cost for the transmission path which extends between the Telephone Company serving wire centers and/or hub(s).

9.2.1.B(2) Channel Mileage Termination

The Channel Mileage Termination rate recovers the cost for end office equipment associated with terminating the facility (i.e., basic circuit equipment and terminations at serving wire centers and hubs). The Channel Mileage Termination rate will apply at the serving wire center(s) for each customer designated premises and Telephone Company hub where the channel is terminated. If the Channel Mileage is between Telephone Company bridging hubs, the Channel Mileage Termination rate will apply per Telephone Company designated hub. If the Channel

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.2 Rate Regulations (Cont'd)

9.2.1 Rate Categories (Cont'd)

9.2.1.B Channel Mileage (Cont'd)

9.2.1.B(2) Channel Mileage Termination (Cont'd)

Mileage is between the serving wire center for a customer designated premises and a WATS Serving Office, the Channel Mileage Termination rate will apply at both the serving wire center associated with the customer designated premises and the WATS Serving Office.

When the Channel Mileage Facility is zero (i.e., collocated serving wire centers), neither the Channel Mileage Facility rate nor the Channel Mileage Termination rate will apply.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.2 Rate Regulations (Cont'd)

9.2.1 Rate Categories (Cont'd)

9.2.1.C Optional Features and Functions

The Optional Features and Functions rate category recovers the costs associated with optional features and functions which may be added to a Special Access Service to improve its quality or utility to meet specific communications requirements. These are not necessarily identifiable with specific equipment, but rather represent the end result in terms of performance characteristics which may be obtained. These characteristics may be obtained by using various combinations of equipment. Although the equipment necessary to perform a specified function may be installed at various locations along the path of the service, they will be charged for as a single rate element.

Examples of Optional Features and Functions that are available include, but are not limited to, the following:

- Signaling Capability
- Hubbing Functions
- Conditioning
- Transfer Arrangements

Descriptions for each of the available Optional Features and Functions are set forth in 9.4 through 9.11 following.

A hub is a Telephone Company designated serving wire center at which bridging or multiplexing functions are performed. The bridging functions performed are to connect three or more customer designated premises in a multipoint arrangement. The multiplexing functions are to channelize analog or digital facilities to individual services requiring a lower capacity or bandwidth.

NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4 identifies serving wire centers, hub locations, hub level (i.e., Hub, Terminus Hub, Intermediate Hub, or Super-Intermediate Hub) and the type of bridging or multiplexing functions available. Additionally, subtending wire centers are identified for Intermediate and Super-Intermediate Hubs.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.2 Rate Regulations (Cont'd)

9.2.2 Types of Rates and Charges

There are three types of rates and charges. These are monthly rates, daily rates and nonrecurring charges. The rates and charges are described as follows:

9.2.2.A Monthly Rates

Monthly rates are recurring rates that apply each month or fraction thereof that a Special Access Service is provided. For billing purposes, each month is considered to have 30 days.

9.2.2.B Daily Rates

Daily rates are recurring rates that apply to each 24 hour period or fraction thereof that a Program Audio or Video Special Access Service is provided for part-time use. For purposes of applying daily rates, the 24 hour period is not limited to a calendar day.

Part-time Video or Program Audio Service provided within a consecutive 30 day period will be charged the daily rate, not to exceed the monthly rate. For each day or partial day after a consecutive 30 day period of service, a charge equal to 1/30th of the monthly rate shall apply.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.2 Rate Regulations (Cont'd)

9.2.2 Types of Rates and Charges (Cont'd)

9.2.2.C Nonrecurring Charges

Nonrecurring charges are one-time charges that apply for specific work activity (i.e., installation or change to an existing service). The types of nonrecurring charges that apply for Special Access Service are: installation of service, installation of optional features and functions, and service rearrangements. These charges are in addition to the Access Order Charge as specified in 12.1.1 following.

9.2.2.C(1) Installation of Service

Nonrecurring charges apply to each service installed. The nonrecurring charges for the installation of service are set for each channel type as a nonrecurring charge for the Channel Termination.

9.2.2.C(2) Installation of Optional Features and Functions

When optional features and functions are installed coincident with the initial installation of service, no separate nonrecurring charge is applicable. When optional features and functions are installed or changed subsequent to the installation of service, an Access Order Charge as specified in 12.1.1 following will apply per order.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.2 Rate Regulations (Cont'd)

9.2.2 Types of Rates and Charges (Cont'd)

9.2.2.C Nonrecurring Charges (Cont'd)

9.2.2.C(3) Service Rearrangements

Service rearrangements are changes to existing (installed) services which may be administrative only in nature, as set forth following, or that involve actual physical change to the service. Changes to pending orders are set forth in 5.4 preceding.

Changes in the physical location of the point of termination or customer designated premises are moves as set forth in 9.2.3 following.

Changes in the type of Service or Channel Termination which result in a change of the minimum period requirement will be treated as a discontinuance of the service and an installation of a new service.

Changes in ownership or transfer of responsibility from one customer to another will be treated as a discontinuance of the service and an installation of a new service. In the event the change in ownership or transfer of responsibility is as set forth in 2.1.2(A) preceding where there is no change in facilities or arrangements, the change will be treated as an administrative change.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.2 Rate Regulations (Cont'd)

9.2.2 Types of Rates and Charges (Cont'd)

9.2.2.C Nonrecurring Charges (Cont'd)

9.2.2.C(3) Service Rearrangements (Cont'd)

Administrative changes will be made without charge(s) to the customer. Administrative changes are as follows:

- Change of customer name,
- Change of customer or customer's end user premises address when the change of address is not a result of physical relocation of equipment,
- Change in billing data (name, address, or contact name or telephone number),
- Change of agency authorization,
- Change of customer circuit identification,
- Change of billing account number,
- Change of customer test line number,
- Change of customer or customer's end user contact name or telephone number, and
- Change of jurisdiction.

All other service rearrangements will be charged as follows:

- If the change involves the addition of other customer designated premises to an existing service, the nonrecurring charge for the channel termination rate element will apply. The charge(s) will apply only for the location(s) that is being added. The charge(s) will be in addition to an Access Order Charge as set forth in 12.1.1 following.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.2 Rate Regulations (Cont'd)

9.2.2 Types of Rates and Charges (Cont'd)

9.2.2.C Nonrecurring Charges (Cont'd)

9.2.2.C(3) Service Rearrangements (Cont'd)

- If the change involves the addition of an optional feature or function (with the exception of the addition of Clear Channel Capability to an existing service), or if the change involves changing the type of signaling on a Voice Grade service, and for all other changes the Access Order Charge as set forth in 12.1.1 following will apply.
- When the Clear Channel Capability optional feature is installed on an existing facility, the addition will be treated as a discontinuance and start of service and all associated non-recurring charges will apply.

9.2.3 Moves

A move involves a change in the physical location of one of the following:

- The Point of Termination at the customer's premises
- The customer's premises

The charges for the move are dependent on whether the move is to a new location within the same building or to a different building.

9.2.3.A Moves Within the Same Building

When the move is to a new location within the same building, the charge for the move will be an amount equal to one half of the nonrecurring (i.e., installation) charge for the service termination affected. There will be no change in the minimum period requirements. This charge is in addition to the Access Order Charge as specified in 12.1.1 following.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.2 Rate Regulations (Cont'd)

9.2.3 Moves (Cont'd)

9.2.3.B Moves To a Different Building

Moves to a different building will be treated as a discontinuance and start of service and all associated nonrecurring charges will apply. New minimum period requirements will be established for the new services. The customer will also remain responsible for satisfying all outstanding minimum period charges for the discontinued service.

9.2.4 Minimum Periods

The minimum service period for all services except part-time Video and Program Audio services and DS3 High Capacity Service is one month and the full monthly rate will apply to the first month. Adjustments for the quantities of services established or discontinued in any billing period beyond the minimum period are as set forth in 2.5.2.F preceding. The minimum service period for part-time Video and Program Audio services is a continuous 24-hour period, not limited to a calendar day. The minimum service period for DS3 High Capacity Service is twelve months.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.2 Rate Regulations (Cont'd)

9.2.5 Mileage Measurement

The mileage to be used to determine the monthly rate for the Channel Mileage Facility is calculated on the airline distance between the locations involved, i.e.,

- the serving wire centers associated with two customer designated premises,
- a serving wire center associated with a customer designated premises and a Telephone Company hub,
- two Telephone Company hubs,
- a serving wire center associated with a customer designated premises and a wire center equipped for Add/Drop Multiplexing,
- two wire centers equipped for Add/Drop Multiplexing,
- or between the serving wire center associated with a customer designated premises and a WATS Serving Office.

The serving wire center associated with a customer designated premises is the serving wire center from which this customer designated premises would normally obtain dial tone.

Mileage charges are shown with each channel type. To determine the rate to be billed, first compute the mileage using the V&H coordinates method, as set forth in the NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4, then multiply the resulting number of miles times the Channel Mileage Facility per mile rate, and add the Channel Mileage Termination rate for each termination. When the calculation results in a fraction of a mile, always round up to the next whole mile before determining the mileage and applying the rates. When more than one Telephone Company is involved in the provision of service, billing will be accomplished as set forth in 2.5.2.J preceding.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.2 Rate Regulations (Cont'd)

9.2.5 Mileage Measurement

When hubs are involved, mileage is computed and rates applied separately for each section of the Channel Mileage, i.e.,

- customer designated premises serving wire center to hub,
- hub to hub and/or
- hub to customer designated premises serving wire center.

However, when any service is routed through a hub for purposes other than customer specified bridging or multiplexing (e.g., the Telephone Company chooses to so route for test access purposes), rates will be applied only to the distance calculated between the serving wire centers associated with the customer designated premises.

See the service configuration example for multipoint service as set forth in 9.1.3(B) preceding.

9.2.6 Facility Hubs

A customer has the option of ordering Voice Grade service or High Capacity services (i.e., DS1, DS1C, DS2, DS3 or DS4) to a facility hub for channelizing to individual services requiring lower capacity facilities (e.g., Telegraph, Voice, Program Audio, etc.).

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.2 Rate Regulations (Cont'd)

9.2.6 Facility Hubs (Cont'd)

Different locations may be designated as hubs for different facility capacities, e.g., multiplexing from digital to digital may occur at one location while multiplexing from digital to analog may occur at a different location. When placing an Access Order the customer will specify the desired hub.

NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF F.C.C. NO. 4 identifies serving wire centers, hub locations, hub level (i.e., Hub, Terminus Hub, Intermediate Hub, or Super-Intermediate Hub) and the type of multiplexing functions available. Additionally, subtending wire centers are identified for Intermediate and Super-Intermediate Hubs.

Some of the types of multiplexing available include the following:

- from higher to lower bit rate
- from higher to lower bandwidth
- from high capacity to voice frequency channels.

Point to point services may be provided on channels of these services to a hub. The transmission performance for the point to point service provided between customer designated premises will be that of the lower capacity or bit rate. For example, when a 1.544 Mbps channel is multiplexed to voice frequency channels, the transmission performance of the channelized services will be Voice Grade, not High Capacity.

The Telephone Company will commence billing the monthly rate for the service to the hub on the date specified by the customer on the Access Order. Individual channels utilizing these services may be installed coincident with the installation of the service to the hub or may be ordered and/or installed at a later date, at the option of the customer. The customer will be billed for a Voice Grade or a High Capacity Channel Termination, Channel Mileage (when applicable), and the multiplexer at the time the service is installed. Individual service rates (by service type) will apply for a Channel Termination and additional Channel Mileage (as required) for each channelized service. These will be billed to the customer as each individual service is installed.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.2 Rate Regulations (Cont'd)

9.2.6 Facility Hubs (Cont'd)

Cascading multiplexing occurs when a High Capacity service is de-multiplexed to provide channels with a lesser capacity and one of the lesser capacity channels is further de-multiplexed. For example, a 6.312 Mbps High Capacity service is de-multiplexed to four DS1 channels and then one of the DS1 channels is further de-multiplexed to 24 individual Voice Grade channels.

When cascading multiplexing is performed, whether in the same or a different hub, a charge for the additional multiplexing unit also applies. When cascading multiplexing is performed at different hubbing locations, Channel Mileage charges also apply between the hubs.

The Telephone Company will designate hubs for Program Audio and Video Services. Full-time or part-time service may be provided between customer designated premises or between a customer designated premises and a hub and billed accordingly at the monthly rates set forth in 12.6.5 and 12.6.6 following for a Channel Termination, Channel Mileage and Optional Features and Functions, as applicable. When the service is ordered to a hub, the customer may order full-time or part-time Video and Program Audio services as needed between that hub and additional customer designated premises. The rate elements required to provide the part-time service (i.e., Channel Termination, Channel Mileage and Optional Features and Functions, as applicable) will be billed at daily rates for the duration of the service requested.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.3 Surcharge for Special Access Service

9.3.1 General

This tariff does not contemplate a surcharge for Special Access Services.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.4 Metallic Service

9.4.1 Basic Channel Description

A Metallic channel is an unconditioned two-wire channel arranged to transmit direct current and capable of transmitting low speed varying signals at rates up to 30 baud. This channel is provided by metallic or equivalent facilities. Metallic channels are provided between customer designated premises or between a customer designated premises and a Telephone Company hub or hubs where bridging functions are performed. Interoffice metallic facilities will be limited in length to a total of five miles per channel.

Metallic Special Access Services are typically used for applications such as alarm, pilot wire protective relaying, and dc tripping protective relaying. These examples of applications are not intended to limit a customer's use of the channel nor to imply that the channel is limited to a particular use.

Rates and charges for Special Access Metallic Service are as set forth in 12.6.2 following.

9.4.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 11.2.1.A following. Compatible network channel interfaces are set forth in 11.2.2.C(1) following.

9.4.3 Optional Features and Functions

Central Office Bridging Capability

9.4.3.A Three Premises Bridging - Provision of tip-to-tip and ring-to-ring connection in a central office of a metallic pair to a third customer designated premises.

9.4.3.B Series Bridging of up to 26 customer designated premises.

The table set forth in 11.2.1.A following shows the technical specifications packages with which the optional features and functions are available.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.5 Telegraph Grade Service

9.5.1 Basic Channel Description

Telegraph Grade channel is an unconditioned channel capable of transmitting binary signals at rates of 0-75 baud or 0-150 baud. This channel is furnished for half- duplex or duplex operation. Telegraph Grade channels are provided between customer designated premises or between a customer designated premises and a Telephone Company hub or hubs.

Telegraph Grade Special Access Services are typically Used for applications such as teletypewriter, telegraph grade control/remote metering, telegraph grade channel, telegraph grade extension, and telegraph grade entrance facilities. These examples of applications are not intended to limit a customer's use of the channel nor to imply that the channel is limited to a particular use.

Rates and charges for Special Access Telegraph Grade Service are as set forth in 12.6.3 following.

9.5.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 11.2.1.B following. Compatible network channel interfaces are set forth in 11.2.2.C(2) following.

9.5.3 Optional Features and Functions

Telegraph Bridging (two-wire and four-wire)

The table set forth in 11.2.1.B following shows the technical specifications packages with which the optional features and functions are available.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.6 Voice Grade Service

9.6.1 Basic Channel Description

A Voice Grade channel is a channel which provides voice frequency transmission capability in the nominal frequency range of 300 to 3000 Hz and may be terminated as two-wire or four-wire. Voice Grade channels are provided between customer designated premises, between a customer designated premises and a Telephone Company hub or hubs, or between a customer designated premises and a WATS Serving Office (WSO).

Voice Grade Special Access Services are typically used For voice and voiceband data applications. Typical examples of voice grade circuits are Foreign Exchange lines (station end only), multipoint private line, voice trunk type, two-point voice grade data (one-way or simultaneous two-way), multipoint voice grade data, and voice grade telephoto or facsimile. These examples of applications are not intended to limit a customer's use of the channel nor to imply that the channel is limited to a particular use.

Rates and charges for Special Access Voice Grade Service are as set forth in 12.6.4 following.

9.6.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 11.2.1.C following. Compatible network channel interfaces are set forth in 11.2.2.C(3) following.

9.6.3 Optional Features and Functions

9.6.3.A Central Office Bridging Capability

- 9.6.3.A(1) Voice Bridging (two-wire and four-wire)
- 9.6.3.A(2) Data Bridging (two-wire and four-wire)
- 9.6.3.A(3) Telephoto Bridging (two-wire and four-wire)
- 9.6.3.A(4) DATAPHONE Select-A-Station Bridging with sequential arrangement ports or addressable arrangement ports

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.6 Voice Grade Service (Cont'd)

9.6.3 Optional Features and Functions (Cont'd)

9.6.3.A Central Office Bridging Capability (Cont'd)

9.6.3.A(5) Telemetry and Alarm Bridging

Split Band, Active Bridging

Passive Bridging

Summation, Active Bridging

The rates for these options are set forth in 12.6.4.C following.

9.6.3.B Central Office Multiplexing

Voice to Telegraph Grade. An arrangement that converts a Voice Grade channel to Telegraph Grade channels using frequency division multiplexing.

The rate for this option is set forth in 12.6.4.C following.

9.6.3.C Conditioning

Conditioning provides more specific transmission characteristics for Voice Grade services. The rates for these options are set forth in 12.6.4.C following.

For two-point services, the parameters apply to each service as measured end-to-end. For multipoint services, the parameters apply as measured on each mid-link or as measured on each end link. C-Type conditioning and Data Capability may be combined on the same service.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.6 Voice Grade Service (Cont'd)

9.6.3 Optional Features and Functions (Cont'd)

9.6.3.C Conditioning

9.6.3.C(1) C-Type Conditioning

C-Type Conditioning is provided for the additional control of attenuation distortion and envelope delay distortion on data services. The attenuation distortion and envelope delay distortion specifications for C-Type Conditioning are delineated in Technical Reference TR-TSY-000335.

9.6.3.C(2) Data Capability (D Conditioning)

Data Capability provides transmission characteristics suitable for data communications. Specifically, Data Capability provides for the control of Signal to C-Notched Noise Ratio and intermodulation distortion. It is available for two-point services or three-point multipoint services.

The Signal to C-Notched Noise Ratio and intermodulation distortion parameter for Data Capability are delineated in Technical Reference TR-TSY-000335. The rate for this option is set forth in 12.6.4(C)(2) following.

When a service equipped with Data Capability is used for voice communications, the quality of the voice transmission may not be satisfactory.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.6 Voice Grade Service (Cont'd)

9.6.3 Optional Features and Functions (Cont'd)

9.6.3.C Conditioning (Cont'd)

9.6.3.C(3) Telephoto Capability

Telephoto Capability provides transmission characteristics suitable for telephotographic communications. Specifically, Telephoto Capability is provided for the control of attenuation distortion and envelope delay distortion on telephotographic services. The attenuation distortion and envelope delay distortion parameters for Telephoto Capability are delineated in Technical Reference TR-TSY-000335. The rate for this option is set forth in 12.6.4(C)(2) following.

9.6.3.C(4) Sealing Current Conditioning

Sealing Current Conditioning is provided to help maintain continuity on dry metallic loops. It is usually associated with four-wire DA or NO type network channel interfaces.

9.6.3.D Customer Specified Premises Receive Level

This option allows the customer to specify the receive level at the Point of Termination. The level must be within a specific range on effective four-wire transmission. The ranges are delineated in Technical Reference TR-TSY-000335. The rate for this option is set forth in 12.6.4(C)(4) following.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.6 Voice Grade Service (Cont'd)

9.6.3 Optional Features and Functions (Cont'd)

9.6.3.E Improved Return Loss

- 9.6.3.E(1) On Effective Four-Wire Transmission at Four-Wire Point of Termination (applicable to each two-wire port): Provides for a fixed 600 ohm impedance, variable level range and simplex reversal. Telephone Company equipment is required at the customer's premises where this option is ordered. The Improved Return Loss parameters are delineated in Technical Reference TR-TSY-000335. The rate for this option is set forth in 12.6.4(C)(3) following.
- 9.6.3.E(2) On Effective Two-Wire Transmission at Two-Wire Point of Termination: Provides for more stringent Echo Control specifications. In order for this option to be applicable, the transmission path must be four-wire at one POT and two-wire at the other POT. Placement of Telephone Company equipment may be required at the customer's premises with the two-wire POT. The Improved Return Loss parameters are delineated in Technical Reference TR-TSY-000335. The rate for this option is set forth in 12.6.4(C)(3) following.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.6 Voice Grade Service (Cont'd)

9.6.3 Optional Features and Functions (Cont'd)

9.6.3.F Signaling Capability

Signaling Capability provides for the ability to transmit signals from one customer premises to another customer premises on the same service. The rate for this option is set forth in 12.6.4(C)(6) following.

The following network channel interfaces for Voice Grade service do not require signaling capability: AH, DA, DB, DD, DE, DS, NO, PR and TF.

The following network channel interfaces for Voice Grade service require signaling capability: AB, AC, CT, DX, DY, EA, EB, EC, EX, GO, GS, LA, LB, LC, LO, LR, LS, RV and SF. The signaling capability charge will not apply when used in the provision of WATS access service.

9.6.3.G Selective Signaling Arrangement

An arrangement that permits code selective ringing for up to ten codes on a multipoint service. The rate for this option is set forth in 12.6.4(C)(7) following.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.6 Voice Grade Service (Cont'd)

9.6.3 Optional Features and Functions (Cont'd)

9.6.3.H Transfer Arrangement

An arrangement that affords the customer an additional measure of flexibility in the use of an access channel(s). The arrangement can be utilized to transfer a leg of a Special Access Service to another channel that terminates in either the same or a different customer premises. A key activated or dial-up control service is required to operate the transfer arrangement. A spare channel, if required, is not included as part of the option. The rate for this option is set forth in 12.6.4(C)(8) following.

9.6.3.I Public Packet Switching Network (PPSN) Interface Arrangement

An arrangement that provides the interface requirements that permit a Voice Grade service to interface with a Public Packet Switching Network packet switch located in a Telephone Company premises. The interface is compatible with X.25 and X.75 packet switching protocols as defined by the CCITT. This option is provided on an Individual Case Basis as set forth in 12.6.4(C)(9) following.

9.6.3.J Four-Wire/Two-Wire Conversions

When a customer requests that an effective four-wire channel be terminated with a two-wire channel interface at the customer designated premises, a four-wire to two-wire conversion is required. The customer will be charged the four-wire Channel Termination rate as set forth in 12.6.4(A) following when an effective four-wire is specified in the order for service. The rate for the conversion is included as part of the basic four-wire Channel Termination rate.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.6 Voice Grade Service (Cont'd)

9.6.3 Optional Features and Functions (Cont'd)

9.6.3.K Improved Two-Wire Voice Transmission

9.6.3.K(1) Loss Deviation

The maximum Loss Deviation of the 1004 Hz loss relative to the Expected Measured Loss (EML) is -4.0 dB to +4.0 dB.

9.6.3.K(2) Attenuation Distortion

The maximum Attenuation Distortion in the 404 to 280 Hz frequency band relative to loss at 1004 Hz is -2.0 dB to +6.0 dB.

9.6.3.K(3) C-Message Noise

The maximum C-Message Noise for the transmission path at the route miles listed is less than:

<u>Route Miles</u>	<u>C-Message Noise</u>
less than 50	35 dBrnc0
51 to 100	37 dBrnc0
101 to 200	40 dBrnc0
201 to 400	43 dBrnc0
401 to 1000	45 dBrnc0

9.6.3.K(4) Return Loss

The Return Loss, expressed as Echo Return Loss (ERL) and Singing Return Loss (SRL), is equal to or greater than:

ERL	13.0 dB
SRL	6.0 dB

The rate for the provision of Improved Two-Wire Voice Transmission is included as part of the basic Channel Termination rate.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.7 Program Audio Service

9.7.1 Basic Channel Description

A Program Audio channel is a channel with bandwidth measured in Hz for the transmission of a complex signal voltage. The actual bandwidth is a function of the channel interface selected by the customer. Only one-way transmission is provided. Program Audio channels are provided between customer designated premises or between a customer designated premises and a Telephone Company hub or hubs.

Program Audio Special Access services are typically used in full-time and part-time applications for radio broadcasting, noncommercial educational audio, and wired music. These examples of applications are not intended to limit a customer's use of the channel nor to imply that the channel is limited to a particular use.

Rates and charges for Special Access Program Audio Service are as set forth in 12.6.5 following.

9.7.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 11.2.1(D) following. Compatible network channel interfaces are set forth in 11.2.2(C)(4) following.

9.7.3 Optional Features and Functions

9.7.3.A Central Office Bridging Capability

Distribution Amplifier

9.7.3.B Gain Conditioning

Control of 1004 Hz AML at initiation of service to 0 dB □ 0.5 dB.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.7 Program Audio Service

9.7.3 Optional Features and Functions (Cont'd)

9.7.3.C Stereo

Provision of a pair of gain/phase equalized channels for stereo applications. (An additional Program Audio channel must be ordered separately.)

The table set forth in 11.2.1(D) following shows the technical specifications packages with which the optional features and functions are available.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.8 Video Service

9.8.1 Basic Channel Description

A Video channel is a channel with one-way transmission capability for a standard 525 line/60 field monochrome, or National Television Systems Committee color, video signal and one or two associated 5 or 15 kHz audio signal(s). The associated audio signal(s) may be either diplexed or provided as one or two separate channels. The provision and the bandwidth of the associated audio signal(s) is a function of the channel interface selected by the customer. Video channels are provided between customer designated premises or between a customer designated premises and a Telephone Company hub or hubs.

Rates and charges for Special Access Video Service are as set forth in 12.6.6 following.

9.8.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 11.2.1(E) following. Compatible network channel interfaces are set forth in 11.2.2(C)(5) following.

The following network channel interfaces (NCIs) define the bandwidth and the provision of the audio signal(s) associated with a Video channel:

<u>NCI</u>	<u>Audio Bandwidth</u>	<u>Provision</u>
2TV6-1	15kHz	1 Channel, diplexed
2TV6-2	15kHz	2 Channels, diplexed
2TV7-1	15kHz	1 Channel, diplexed
2TV7-2	15kHz	2 Channels, diplexed
4TV6-5	5kHz	1 Channel, separate
4TV6-15	15kHz	1 Channel, separate
4TV7-5	5kHz	1 Channel, separate
4TV7-15	15kHz	1 Channel, separate
6TV6-5	5kHz	2 Channels, separate
6TV6-15	15kHz	2 Channels, separate
6TV7-5	5kHz	2 Channels, separate
6TV7-15	15kHz	2 Channels, separate

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.9 Digital Data Service

9.9.1 Basic Channel Description

A Digital Data channel is a channel for duplex four-wire transmission of synchronous serial data at the rate of 2.4, 4.8, 9.6, 19.2, 56.0 or 64.0* Kbps. The actual bit rate is a function of the channel interface selected by the customer. The channel provides a synchronous service with timing provided by the Telephone Company through the Telephone Company's facilities to the customer in the received bit stream. Digital Data channels are provided as either hubbed or non-hubbed services between customer designated premises or between a customer designated premises and a Telephone Company hub or hubs. The hubs providing hubbed digital service and the wire centers providing non-hubbed digital service are identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC., WIRE CENTER INFORMATION, TARIFF F.C.C. NO. 4.

The customer may provide the Channel Service Unit-type equipment or other Network Channel Terminating Equipment associated with the Digital Data channel at the customer premises.

The Telephone Company will provide a channel capable of meeting a monthly average performance equal to or greater than 99.875% error-free seconds (if provided through a Digital Data hub) while the channel is in service, if it is measured through a CSU equivalent which is designed, manufactured, and maintained to conform with the specifications contained in Technical Reference PUB 62310.

Rates and charges for Special Access Digital Data Service are as set forth in 12.6.7 following.

9.9.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 11.2.1(F) following. Compatible channel interfaces are set forth in 11.2.2(C)(6) following.

* When 64.0 Kbps service is multiplexed on a DS1 High Capacity service, the DS1 must be equipped to provide Clear Channel Capability.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.9 Digital Data Service

9.9.2 Technical Specifications Packages and Network Channel Interfaces (Cont'd)

The following network channel interfaces (NCIs) define the bit rates that are available for a Digital Data channel:

<u>NCI</u>	<u>Bit Rate</u>
DU-24	2.4 Kbps
DU-48	4.8 Kbps
DU-96	9.6 Kbps
DU-19	19.2 Kbps
DU-56	56.0 Kbps
DU-64	64.0 Kbps

9.9.3 Optional Features and Functions

The Optional Features and Functions described in (A), (B), and (C) following are only available where Digital Data Service is provided via a hub. The Optional Features and Functions described in (D) following are available where Digital Data Service is provided on a non-hubbed basis.

9.9.3.A Central Office Bridging Capability

Bridging is not available on a 64.0 Kbps channel.

9.9.3.B Transfer Arrangement

An arrangement that affords the customer an additional measure of protection and/or flexibility in the use of their access channel(s) on a 1xN basis. The arrangement can be utilized to transfer a leg of a Special Access Service to either a spare or working channel that terminates in either the same or a different customer designated premises. This arrangement is only available at a Telephone Company designated hub. A key activated or dial-up control service is required to operate the transfer arrangement. A spare channel, if required, is not included as a part of the option.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.9 Digital Data Service

9.9.3 Optional Features and Functions (Cont'd)

9.9.3.C Public Packet Switching Network (PPSN) Interface Arrangement

An arrangement that provides the interface requirements that permit a Digital Data Service to interface with a Public Packet Switching Network packet switch located in a Telephone Company premises. The interface is compatible with X.25 and X.75 packet switching protocols as defined by the CCITT.

The table set forth in 11.2.1(F) following shows the technical specifications packages with which the optional features and functions are available.

9.9.3.D Public Packet Data Service Interface Arrangement

An arrangement that provides for the interface requirements that permit a Digital Data Service to interface with a Public Packet Data switch located in a Telephone Company premises. The interface is compatible with Frame Relay packet switching protocols. The interface is only available for 56.0 kbps and 64.0 kbps rates.

The table set forth in 11.2.1(F) following shows the technical specifications packages with which the optional features and functions are available.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.10 High Capacity Service

9.10.1 Basic Channel Description

A High Capacity channel is a channel for the transmission of nominal 64.0 Kbps* or 1.544, 3.152, 6.312, 44.736, or 274.176 Mbps isochronous serial data. The actual bit rate is a function of the channel interface selected by the customer. High Capacity channels are provided between customer designated premises or between a customer designated premises and a Telephone Company hub or hubs.

The customer may provide the Network Channel Terminating Equipment associated with the High Capacity channel at the customer's premises.

A channel with technical specifications package HC1 will be capable of an error-free second performance of 98.75% over a continuous 24 hour period as measured at the 1.544 Mbps rate through a CSU equivalent which is designed, manufactured, and maintained to conform with the specifications contained in Technical Reference PUB 62411.

Rates and charges for Special Access High Capacity Service are as set forth in 12.6.8 following.

* Available only as a channel of a 1.544 Mbps facility to a Telephone Company Digital Data hub or as a cross connect of two 2.4, 4.8, 9.6, 56.0 or 64.0 Kbps channels of two 1.544 Mbps facilities to a Digital Data hub(s). The customer must provide system and channel assignment data.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.10 High Capacity Service (Cont'd)

9.10.2 Technical Specifications Packages and Network Channel Interfaces

Technical Specifications Packages are set forth in 11.2.1(G) following. Compatible channel interfaces are set forth in 11.2.2(C)(7) following.

The following network channel interfaces (NCIs) define the bit rates that are available for a High Capacity channel:

<u>NCI</u>	<u>Bit Rate</u>
DS-15*	1.544 Mbps (DS1)
DS-27	274.176 Mbps (DS4)
DS-31	3.152 Mbps (DS1C)
DS-44	44.736 Mbps (DS3)
DS-63	6.312 Mbps (DS2)

* A 64.0 Kbps channel is available as a channel(s) of a 1.544 Mbps channel to a Telephone Company hub.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.10 High Capacity Service (Cont'd)

9.10.3 Optional Features and Functions

9.10.3.A Automatic Loop Transfer

The Automatic Loop Transfer provides protection on a 1xN basis against failure of the facilities between a customer designated premises and the wire center serving that premises. Protection is furnished through the use of a switching arrangement that automatically switches to a spare channel line when a working line fails. The spare channel is not included as a part of the option. This option requires compatible equipment at both the serving wire center and the customer designated premises. The customer is responsible for providing the equipment at its designated premises.

9.10.3.B Transfer Arrangement

An arrangement that affords the customer an additional measure of flexibility in the use of their access channel(s). The arrangement can be utilized to transfer a leg of a Special Access Service to either a spare or working channel that terminates in either the same or a different customer designated premises. A key activated or dial-up control service is required to operate the transfer arrangement. A spare channel, if required, is not included as part of the option.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.10 High Capacity Service (Cont'd)

9.10.3 Optional Features and Functions (Cont'd)

9.10.3.C Central Office Multiplexing

9.10.3.C.(1) DS4 to DS1

An arrangement that converts a 274.176 Mbps channel to 168 DS1 channels using digital time division multiplexing.

9.10.3.C(2) DS3 to DS1

An arrangement that converts a 44.736 Mbps channel to 28 DS1 channels using digital time division multiplexing.

9.10.3.C(3) DS2 to DS1

An arrangement that converts a 6.312 Mbps channel to four DS1 channels using digital time division multiplexing.

9.10.3.C(4) DS1C to DS1

An arrangement that converts a 3.152 Mbps channel to two DS1 channels using digital time division multiplexing.

9.10.3.C(5) DS1 to Voice

An arrangement that converts a 1.544 Mbps channel to 24 channels for use with Voice Grade Services. A channel(s) of this DS1 to the Hub can also be used for a Digital Data Service.

9.10.3.C(6) DS1 to DS0

An arrangement that converts a 1.544 Mbps channel to 23 64.0 Kbps channels utilizing digital time division multiplexing.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.10 High Capacity Service (Cont'd)

9.10.3 Optional Features and Functions (Cont'd)

9.10.3.C Central Office Multiplexing (Cont'd)

9.10.3.C(7) DS0 to Subrate

An arrangement that converts a 64.0 Kbps channel to subspeeds of up to twenty 2.4 Kbps, ten 4.8 Kbps, or five 9.6 Kbps channels using digital time division multiplexing.

9.10.3.D Clear Channel Capability (CCC)

9.10.3.D(1) CCC is an arrangement that allows a customer to transport 1.536 Mbps information rate signals over a 1.544 Mbps High Capacity channel or over a 1.544 Mbps High Capacity channel derived from a multiplexed 44.736 Mbps High Capacity channel with no constraint on the quantity or sequence of one and zero bits. This arrangement requires the customer signal at the channel interface to conform to Bipolar with Eight Zero Substitution (B8ZS) line code as described in Technical Reference TR-NPL-000054 and Technical Reference TR-INS-000342.

9.10.3.D(2) CCC is provided, subject to availability of facilities, on DS1/1.544 Mbps High Capacity channels between two customer designated premises and on multiplexed DS3/44.736 Mbps High Capacity channels or multiplexed DS1/1.544 Mbps High Capacity channels* between a Telephone Company hub office and a customer designated premises. The wire centers providing CCC are identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC., WIRE CENTER INFORMATION, TARIFF F.C.C. NO. 4.

9.10.3.D(3) The CCC optional feature may be ordered at the same time the High Capacity service is ordered or it may be ordered as an addition to an existing High Capacity Service. The customer must agree to out-of-service periods required to add this feature to an existing High Capacity Service. The charges for the CCC optional feature are as set forth in 9.2.2(C)(3) preceding.

* Available only on a DS1-to-Digital multiplexed configuration.

ACCESS SERVICE

9. SPECIAL ACCESS SERVICE (Cont'd)

9.11 Individual Case Filings

Certain services set forth in Special Access Service, Section 9. are provided on an Individual Case Basis.

ACCESS SERVICE

10. RESERVED FOR FUTURE USE

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS

Section 11.1 contains Switched Access Service Options (which are comprised of Interface Groups, Supervisory Signaling, Entry Switch Receive Level and Local Transport Termination) and Transmission Specifications. Section 11.2 describes Special Access Service Network Channel (NC) codes and Network Channel Interface (NCI) codes.

11.1 Switched Access Service

Ten Interface Groups are provided for terminating the Local Transport Entrance Facility at the customer's designated premises. Each Interface Group provides a specified premises interface (e.g., two-wire, four-wire, DS1, etc.). Where transmission facilities permit, and at the option of the customer, the Entrance Facility may be provided with optional features as set forth in 11.1.1 following.

As a result of the customer's access order and the type of Telephone Company transport facilities serving the customer designated premises, the need for signaling conversions or two-wire to four-wire conversions, or the need to terminate digital or high frequency facilities in channel bank equipment may require that Telephone Company equipment be placed at the customer designated premises. For example, if a voice frequency interface is ordered by the customer and the Telephone Company facilities serving the customer designated premises are digital, then Telephone Company channel bank equipment must be placed at the customer designated premises in order to provide the voice frequency interface ordered by the customer.

11.1.1 Local Transport Interface Groups

Interface Groups are combinations of technical parameters which describe the Telephone Company handoff at the point of termination at the customer designated premises. The technical specifications concerning the available interface groups are set forth in 11.1.1.A through 11.1.1.D following.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.1 Switched Access Service (Cont'd)

11.1.1 Local Transport Interface Groups (Cont'd)

Interface Group 1 is provided with Type C Transmission Specifications, as set forth in 11.1.2 following, and Interface Groups 2 through 10 are provided with Type A or B Transmission Specifications, as set forth respectively in 11.1.2.E and 11.1.2.F following, depending on the Feature Group and whether the Access Service is routed directly or through an access tandem. All Interface Groups are provided with Data Transmission Parameters.

Only certain premises interfaces are available at the customer designated premises. The premises interfaces associated with the Interface Groups may vary among Feature Groups.

11.1.1.A Interface Group 1

Interface Group 1, except as set forth in the following, provides two-wire voice frequency transmission at the point of termination at the customer designated premises. The interface is capable of transmission of voice and associated telephone signals within the frequency bandwidth of approximately 300 to 3000 Hz.

Interface Group 1 is not provided in association with FGD when the first point of switching is an access tandem. In addition, Interface Group 1 is not provided in association with FGB or FGD when the first point of switching provides only four-wire terminations.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.1 Switched Access Service (Cont'd)

11.1.1 Local Transport Interface Groups (Cont'd)

11.1.1.A Interface Group 1 (Cont'd)

The transmission path between the point of termination at the customer designated premises and the customer's serving wire center may be comprised of any form or configuration of plant capable of and typically used in the telecommunications industry for the transmission of voice and associated telephone signals within the frequency bandwidth of 300 to 3000 Hz.

The interface is provided with loop supervisory signaling. When the interface is associated with FGA, such signaling will be loop start or ground start signaling. When the interface is associated with FGD, such signaling, except for two-way calling which is E&M signaling, will be reverse battery signaling.

11.1.1.B Interface Group 2

Interface Group 2 provides four-wire voice frequency transmission at the point of termination at the customer designated premises. The interface is capable of transmission of voice and associated telephone signals within the frequency bandwidth of approximately 300 to 3000 Hz.

The transmission path between the point of termination at the customer designated premises and the customer's serving wire center may be comprised of any form or configuration of plant capable of and typically used in the telecommunications industry for the transmission of voice and associated telephone signals within the frequency bandwidth of approximately 300 to 3000 Hz.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.1 Switched Access Service (Cont'd)

11.1.1 Local Transport Interface Groups (Cont'd)

11.1.1.B Interface Group 2 (Cont'd)

The interface is provided with loop supervisory signaling. When the interface is associated with FGA, such signaling will be loop start or ground start signaling. When the interface is associated with FGD, such signaling, except for two-way calling which is E&M signaling, will be reverse battery signaling.

11.1.1.C Interface Groups 3 through 5

Interface Groups 3 through 5 provide analog transmission at the point of termination at the customer designated premises. The various interfaces are capable of transmitting electrical signals at the frequencies illustrated following, with the capability to channelize voice frequency transmission paths. Certain frequencies within the bandwidth of the Interface Groups are reserved for Telephone Company use, e.g., pilot and carrier group alarm tones. Before the first point of switching, the Telephone Company will provide multiplex equipment to derive the transmission paths of frequency bandwidth of approximately 300 to 3000 Hz.

The interfaces are provided with individual transmission path SF supervisory signaling.

<u>Interface Group Identification No</u>	<u>Transmission Frequency Bandwidth</u>	<u>Analog Hierarchy Level</u>	<u>Maximum No. of Channelized Voice Freq. Trans. Paths</u>
3	60 - 108 kHz	Group	12
4	312 - 552 kHz	Supergroup	60
5	564 - 3084 kHz	Mastergroup	600

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.1 Switched Access Service (Cont'd)

11.1.1 Local Transport Interface Groups (Cont'd)

11.1.1.D Interface Groups 6 through 10

Interface Groups 6 through 10 provide digital transmission at the point of termination at the customer designated premises. The various interfaces are capable of transmitting electrical signals at the nominal bit rates illustrated following, with the capability to channelize voice frequency transmission paths. Before the first point of switching, when analog switching utilizing analog terminations is provided, the Telephone Company will provide multiplex and channel bank equipment to derive transmission paths of a frequency bandwidth of approximately 300 to 3000 Hz. When digital switching or analog switching with digital carrier terminations is provided, the Telephone Company will provide, a DS1 signal(s) in D3/D4 format.

The interfaces are provided with individual transmission path bit stream supervisory signaling.

<u>Interface Group Identification No.</u>	<u>Nominal Bit Rate (Mbps)</u>	<u>Digital Hierarchy Level</u>	<u>Max. No. of Channelized Voice Freq. Trans. Paths</u>
6	1.544	DS1	24
7	3.152	DS1C	48
8	6.312	DS2	96
9	44.736	DS3	672
10	274.176	DS4	4032

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.1 Switched Access Service (Cont'd)

11.1.1 Local Transport Interface Groups (Cont'd)

11.1.1.E Local Transport Optional Features

Where transmission facilities permit, the Telephone Company will, at the option of the customer, provide the following features in association with Local Transport. An Access Order Charge as specified in 12.1 following is applicable on a per order basis when nonchargeable optional features are added subsequent to the installation of service (with the exception of the addition of 64 Clear Channel Capability to an existing service).

When the 64 Clear Channel Capability optional feature is installed on an existing facility, the addition will be treated as a discontinuance and start of service and all associated nonrecurring charges will apply.

- Customer Specified Entry Switch Receive Level

Customer Specified Entry Switch Receive Level allows the customer to specify the receive transmission level at the first point of switching. The range of transmission levels which may be specified is described in Technical Reference GR-334-CORE. This feature is available with Interface Groups 2 through 10 for Feature Groups A and B.

- Customer Specification of Local Transport Termination

Customer Specification of Local Transport Termination allows the customer to specify, for Feature Group B routed directly to an end office or access tandem, a four-wire termination of the Local Transport at the first point of switching in lieu of a Telephone Company selected two-wire termination. This option is available only when the Feature Group B arrangement is provided with Type B Transmission Specifications.

- Supervisory Signaling

Supervisory Signaling allows the customer to order an optional supervisory signaling arrangement for each transmission path provided where the transmission parameters permit, and where signaling conversion is required by the customer to meet its signaling capability.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.1 Switched Access Service (Cont'd)

11.1.1 Local Transport Interface Groups (Cont'd)

11.1.1.E Local Transport Optional Features (Cont'd)

- 64 Clear Channel Capability

64 Clear Channel Capability allows the customer to transport voice or data signals over a 64 Kbps channel with no constraints on the quantity or sequence of ones and zero bits. This option employs the Bipolar 8 Zero Suppression (B8ZS) technique to permit customers to use the full 64 Kbps bandwidth of a DS0 channel. It is only available in suitably equipped electronic end offices as identified in NATIONAL EXCHANGE CARRIER ASSOCIATION, INC. TARIFF NO. 4. 64 Clear Channel Capability, as described in Technical Reference GR-334-CORE, is available with Interface Groups 6 and 9 for Feature Groups C and D with Signaling System 7 (SS7) signaling.

The Interface Groups, as described in 11.1.1.A through 11.1.1.D preceding, represent industry standard arrangements. Where transmission parameters permit, the customer may select the following optional signaling arrangements in place of the signaling arrangements standardly associated with the Interface Groups.

For Interface Groups 1 and 2 associated with FGD

DX Supervisory Signaling,
E&M Type I Supervisory Signaling,
E&M Type II Supervisory Signaling, or
E&M Type III Supervisory Signaling

For Interface Group 2 associated with FGB or FGD and in addition to the preceding

SF Supervisory Signaling, or
Tandem Supervisory Signaling

For Interface Groups 3 through 5

Optional Supervisory Signaling Not Available

For Interface Groups 6 through 10

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.1 Switched Access Service (Cont'd)

11.1.1 Local Transport Interface Groups (Cont'd)

11.1.1.E Local Transport Optional Features (Cont'd)

These Interface Groups may, at the option of the customer, be provided with individual transmission path SF supervisory signaling where such signaling is available in Telephone Company central offices. Generally such signaling is available only where the first point of switching provides an analog (i.e., non-digital) interface to the transport termination.

Additionally, in 11.1.1.F following, there is a matrix of available Premises Interface Codes as a function of Interface Group, Telephone Company

Switch Supervisory Signaling and Feature Group.

11.1.1.F Available Premises Interface Codes

Following is a matrix showing premises interface codes which are available for each Interface Group. Their availability is a function of the Telephone Company switch supervisory signaling and Feature Group. For explanations of these codes, see the Parameter Codes and Options as set forth in 11.2.2A following.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.1 Switched Access Service (Cont'd)

11.1.1 Local Transport Interface Groups (Cont'd)

11.1.1.F Available Premises Interface Codes (Cont'd)

<u>Interface Group</u>	Telephone Company Switch Supervisory <u>Signaling</u>	<u>Premises Interface Code</u>	<u>Feature Group</u>			
			A	B	C	D
1	LO	2LS2	X			
	LO	2LS3	X			
	GO	2GS2	X			
	GO	2GS3	X			
	LO, GO	2DX3	X			
	LO, GO	4EA3-E	X			
	LO, GO	4EA3-M	X			
	LO, GO	6EB3-E	X			
	LO, GO	6EB3-M	X			
	RV, EA, EB, EC	2DX3		X	X	X
	RV, EA, EB, EC	4EA3-E		X	X	X
	RV, EA, EB, EC	4EA3-M		X	X	X
	RV, EA, EB, EC	6EB3-E		X	X	X
	RV, EA, EB, EC	6EB3-M		X	X	X
	EA, EB, EC	6EC3			X	X
	RV	2RV3-0		X	X	X
	RV	2RV3-T		X	X	X
	SS7	2NO2			X	X
2	LO, GO	4SF2	X			
	LO, GO	4SF3	X			
	LO	4LS2	X			
	LO	4LS3	X			
	LO	6LS2	X			
	GO	4GS2	X			
	GO	4GS3	X			
	GO	6GS2	X			
	LO, GO	4DX2	X			
	LO, GO	4DX3	X			
	LO, GO	6EA2-E	X			
	LO, GO	6EA2-M	X			
	LO, GO	8EB2-E	X			
	LO, GO	8EB2-M	X			
	LO, GO	6EX2-B	X			

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.1 Switched Access Service (Cont'd)

11.1.1 Local Transport Interface Groups (Cont'd)

11.1.1.F Available Premises Interface Codes (Cont'd)

<u>Interface Group</u>	Telephone Company Switch Supervisory <u>Signaling</u>	<u>Premises Interface Code</u>	<u>Feature Group</u>			
			<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
2 (Cont'd)	RV, EA, EB, EC	4SF2		X	X	X
	RV, EA, EB, EC	4SF3		X		
	RV, EA, EB, EC	4DX2		X	X	X
	RV, EA, EB, EC	4DX3		X		
	RV, EA, EB, EC	6DX2			X	
	RV, EA, EB, EC	6EA2-E		X	X	X
	RV, EA, EB, EC	6EA2-M		X	X	X
	RV, EA, EB, EC	8EB2-E		X	X	X
	RV, EA, EB, EC	8EB2-M		X	X	X
	EA, EB, EC	8EC2-M			X	X
	RV	4RV2-O		X	X	X
	RV	4RV3-O		X	X	X
	RV	4RV2-T		X	X	
	RV	4RV3-T		X	X	
	SS7	4NO2			X	X
3	LO, GO	4AH5-B	X			
	RV, EA, EB, EC	4AH5-B		X	X	X
	SS7	4AH5-B			X	X
4	LO, GO	4AH6-C	X			
	RV, EA, EB, EC	4AH6-C		X	X	X
	SS7	4AH6-C			X	X
5	LO, GO	4AH6-D	X			
	RV, EA, EB, EC	4AH6-D		X	X	X
	SS7	4AH6-D			X	X
6	LO, GO	4DS9-15	X			
	LO, GO	4DS9-15L	X			
	RV, EA, EB, EC	4DS9-15		X	X	X
	RV, EA, EB, EC	4DS9-15L		X	X	X
	SS7	4DS9-15			X	X

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.1 Switched Access Service (Cont'd)

11.1.1 Local Transport Interface Groups (Cont'd)

11.1.1.F Available Premises Interface Codes (Cont'd)

<u>Interface Group</u>	Telephone Company Switch Supervisory <u>Signaling</u>	<u>Premises Interface Code</u>	<u>Feature Group</u>			
			A	B	C	D
6	LO, GO	4DS9-15	X			
	LO, GO	4DS9-15L	X			
	RV, EA, EB, EC	4DS9-15		X	X	X
	RV, EA, EB, EC	4DS9-15L		X	X	X
	SS7	4DS9-15			X	X
7	LO, GO	4DS9-31	X			
	LO, GO	4DS9-31L	X			
	RV, EA, EB, EC	4DS9-31		X	X	X
	RV, EA, EB, EC	4DS9-31L		X	X	X
	SS7	4DS9-31			X	X
8	LO, GO	4DS9-63	X			
	LO, GO	4DS9-63L	X			
	RV, EA, EB, EC	4DS9-63		X	X	X
	RV, EA, EB, EC	4DS9-63L		X	X	X
	SS7	4DS9-63			X	X
9	LO, GO	4DS9-44	X			
	LO, GO	4DS9-44L	X			
	RV, EA, EB, EC	4DS9-44		X	X	X
	RV, EA, EB, EC	4DS9-44L		X	X	X
	SS7	4DS9-44			X	X
10	LO, GO	4DS9-27	X			
	LO, GO	4DS9-27L	X			
	RV, EA, EB, EC	4DS9-27		X	X	X
	RV, EA, EB, EC	4DS9-27L		X	X	X
	SS7	4DS9-27			X	X

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.1 Switched Access Service (Cont'd)

11.1.2 Standard Transmission Specifications

Descriptions of the transmission specifications available with each Feature Group as a function of the Interface Group selected by the customer, are set forth in 11.1.2.A through 11.1.2.D following. Descriptions of each of these Standard Transmission Specifications and the two Data Transmission Parameters mentioned are set forth respectively in 11.1.2.E through 11.1.2.G and 11.1.3.A and 11.1.3.B following:

11.1.2.A Feature Group A

FGA is provided with either Type B or Type C Transmission Specifications. The specifications for the associated parameters are guaranteed to the first point of switching. Type C Transmission Specifications are provided with Interface Group 1 and Type B is provided with Interface Groups 2 through 10. Type DB Data Transmission Parameters are provided with FGA to the first point of switching.

11.1.2.B Feature Group B

FGB is provided with either Type B or Type C Transmission Specifications. The specifications for the associated parameters are guaranteed to the end office when routed directly or to the first point of switching when routed via an access tandem. Type C Transmission Specifications are provided with Interface Group 1 and Type B is provided with Interface Groups 2 through 10. Type DB Data Transmission Parameters are provided with FGB to the first point of switching.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.1 Switched Access Service (Cont'd)

11.1.2 Standard Transmission Specifications (Cont'd)

11.1.2.D Feature Group D

FGD is provided with either Type A, Type B or Type C Transmission Specifications as follows:

- When routed to the end office either Type B or C is provided.
- When routed to an access tandem only Type A is provided.
- Type A is provided on the transmission path from the access tandem to the end office.

Type C Transmission Specifications are provided with Interface Group 1. Type A and Type B Transmission Specifications are provided with Interface Groups 2 through 10.

Type DB Data Transmission Parameters are provided with FGD for the transmission path between the customer designated premises and the end office when directly routed to the end office. Type DA Data Transmission Parameters are provided for the transmission path between the customer designated premises and the access tandem and between the access tandem and the end office when routed via an access tandem.

11.1.2.E Type A Transmission Specifications

Type A Transmission Specifications is provided with the following parameters:

11.1.2.E(1) Loss Deviation

The maximum Loss Deviation of the 1004 Hz loss relative to the Expected Measured Loss(EML) is * 2.0 dB.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.1 Switched Access Service (Cont'd)

11.1.2 Standard Transmission Specifications (Cont'd)

11.1.2.E Type A Transmission Specifications (Cont'd)

11.1.2.E(2) Attenuation Distortion

The maximum Attenuation Distortion in the 404 to 2804 Hz frequency band relative to the loss at 1004 Hz is -1.0 dB to +3.0 dB.

11.1.2.E(3) C-Message Noise

The maximum C-Message Noise for the transmission path at the route miles listed is less than or equal to:

<u>Route Miles</u>	<u>C-Message Noise</u>
less than 50	32 dBrnCO
51 to 100	34 dBrnCO
101 to 200	37 dBrnCO
201 to 400	40 dBrnCO
401 to 1000	42 dBrnCO

11.1.2.E(4) C-Notch Noise

The maximum C-Notch Noise, utilizing a -16 dBmO holding tone, is less than or equal to 45 dBrnCO.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.1 Switched Access Service (Cont'd)

11.1.2 Standard Transmission Specifications (Cont'd)

11.1.2.E Type A Transmission Specifications (Cont'd)

11.1.2.E(5) Echo Control

Echo Control, identified as Equal Level Echo Path Loss, and expressed as Echo Return Loss and Singing Return Loss, is dependent on the routing, i.e., whether the service is routed directly from the customer's point of termination (POT) to the end office or via an access tandem. It is equal to or greater than the following:

	<u>Echo Return Loss</u>	<u>Singing Return Loss</u>
POT to Access Tandem	21 dB	14 dB
POT to End Office		
- Direct	N/A	N/A
- Via Access Tandem	16 dB	11 dB

11.1.2.E(6) Standard Return Loss

Standard Return Loss expressed as Echo Return Loss and Singing Return Loss on two-wire ports of a four-wire point of termination shall be equal to or greater than:

<u>Echo Return Loss</u>	<u>Singing Return Loss</u>
5 dB	2.5 dB

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.1 Switched Access Service (Cont'd)

11.1.2 Standard Transmission Specifications (Cont'd)

11.1.2.F Type B Transmission Specifications

Type B Transmission Specifications are provided with the following parameters:

11.1.2.F(1) Loss Deviation

The maximum Loss Deviation of the 1004 Hz loss relative to the Expected Measured Loss (EML) is ± 2.5 dB.

11.1.2.F(2) Attenuation Distortion

The maximum Attenuation Distortion in the 404 to 2804 Hz frequency band relative to loss at 1004 Hz is -2.0 dB to +4.0 dB.

11.1.2.F(3) C-Message Noise

The maximum C-Message Noise for the transmission path at the route miles listed is less than or equal to:

<u>Route Miles</u>	<u>C-Message Noise*</u>	
	<u>Type B1</u>	<u>Type B2</u>
less than 50	32 dBrnCO	35 dBrnCO
51 to 100	33 dBrnCO	37 dBrnCO
101 to 200	35 dBrnCO	40 dBrnCO
201 to 400	37 dBrnCO	43 dBrnCO
401 to 1000	39 dBrnCO	45 dBrnCO

11.1.2.F(4) C-Notch Noise

The maximum C-Notch Noise, utilizing a -16 dBm0 holding tone is less than or equal to 47 dBrnCO.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.1 Switched Access Service (Cont'd)

11.1.2 Standard Transmission Specifications (Cont'd)

11.1.2.F Type B Transmission Specifications

11.1.2.F(5) Echo Control

Echo Control, identified as Impedance Balance for FGA and FGB and Equal Level Echo Path Loss for FGD, and expressed as Echo Return Loss (ERL) and Singing Return Loss (SRL), is dependent on the routing, i.e., whether the service is routed directly from the customer's point of termination (POT) to the end office or via an access tandem. The ERL and SRL also differ by Feature Group, type of termination, and type of transmission path. They are greater than or equal to the following:

	<u>Echo Return Loss</u>	<u>Singing Return Loss</u>
POT to Access Tandem		
- Terminated in 4-Wire trunk	21 dB	14 dB
- Terminated in 2-Wire trunk	16 dB	11 dB
POT to End Office		
- Direct	16 dB	11 dB
- Via Access Tandem		
—For FGB access	8 dB	4 dB

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.1 Switched Access Service (Cont'd)

11.1.2 Standard Transmission Specifications (Cont'd)

11.1.2.F Type B Transmission Specifications

11.1.2.F(6) Standard Return Loss

Standard Return Loss, expressed as Echo Return Loss and Singing Return Loss, on two-wire ports of a four-wire point of termination shall be equal to or greater than:

<u>Echo Return Loss</u>	<u>Singing Return Loss</u>
5 dB	2.5 dB

11.1.2.G Type C Transmission Specifications

Type C Transmission Specifications are provided with the following parameters:

11.1.2.G(1) Loss Deviation

The maximum Loss Deviation of the 1004 Hz loss relative to the Expected Measured Loss (EML) is ± 3.0 dB.

11.1.2.G(2) Attenuation Distortion

The maximum Attenuation Distortion in the 404 to 2804 Hz frequency band relative to loss at 1004 Hz is -2.0 dB to +5.5 dB.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.1 Switched Access Service (Cont'd)

11.1.2 Standard Transmission Specifications (Cont'd)

11.1.2.G Type C Transmission Specifications (Cont'd)

11.1.2.G(3) C-Message Noise

The maximum C-Message Noise for the transmission path at the route miles listed is less than or equal to:

<u>Route Miles</u>	<u>C-Message Noise</u>	
	<u>Type C1</u>	<u>Type C2</u>
less than 50	32 dBrnCO	38 dBrnCO
51 to 100	33 dBrnCO	39 dBrnCO
101 to 200	35 dBrnCO	41 dBrnCO
201 to 400	37 dBrnCO	43 dBrnCO
401 to 1000	39 dBrnCO	45 dBrnCO

11.1.2.G(4) C-Notch Noise

The maximum C-Notch Noise, utilizing a -16 dBm0 holding tone is less than or equal to 47 dBrnCO.

* For Feature Groups C and D only Type C2 will be provided. For Feature Groups A and B, Type C1 or C2 will be provided as set forth in Technical Reference GR-334-CORE.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.1 Switched Access Service (Cont'd)

11.1.2 Standard Transmission Specifications (Cont'd)

11.1.2.G Type C Transmission Specifications (Cont'd)

11.1.2.G(5) Echo Control

Echo Control, identified as Return Loss and expressed as Echo Return Loss and Singing Return Loss is dependent on the routing, i.e., whether the service is routed directly from the customer's point of termination (POT) to the end office or via an access tandem. It is equal to or greater than the following:

	<u>Echo Return Loss</u>	<u>Singing Return Loss</u>
POT to Access Tandem	13 dB	6 dB
POT to End Office		
- Direct	13 dB	6 dB
- Via Access Tandem (for FGB only)	8 dB	4 dB

11.1.3 Data Transmission Parameters

Two types of Data Transmission Parameters, i.e., Type DA and Type DB, are provided for the Feature Group arrangements. Type DB is provided with Feature Groups A, B and C and also with Feature Group D when Feature Group D is directly routed to the end office. Type DA is only provided with Feature Group D and only when routed via an access tandem. Following are descriptions of each.

11.1.3.A Data Transmission Parameters Type DA

11.1.3.A(1) Signal to C-Notched Noise Ratio

The Signal to C-Notched Noise Ratio is equal to or greater than 33 dB.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.1 Switched Access Service (Cont'd)

11.1.3 Data Transmission Parameters (Cont'd)

11.1.3.A Data Transmission Parameters Type DA

11.1.3.A(2) Envelope Delay Distortion

The maximum Envelope Delay Distortion for the frequency bands and route miles specified is:

604 to 2804 Hz

less than 50 route miles	500 microseconds
equal to or greater than 50 route miles	900 microseconds

1004 to 2404 Hz

less than 50 route miles	200 microseconds
equal to or greater than 50 route miles	400 microseconds

11.1.3.A(3) Impulse Noise Counts

The Impulse Noise Counts exceeding a 65 dBrnC0 threshold in 15 minutes is no more than 15 counts.

11.1.3.A(4) Intermodulation Distortion

The Second Order (R2) and Third Order (R3) Intermodulation Distortion products are equal to or greater than:

Second Order (R2)	33 dB
Third Order (R3)	37 dB

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.1 Switched Access Service (Cont'd)

11.1.3 Data Transmission Parameters (Cont'd)

11.1.3.A Data Transmission Parameters Type DA

11.1.3.A(5) Phase Jitter

The Phase Jitter over the 4-300 Hz frequency band is less than or equal to 5° peak-to-peak.

11.1.3.A(6) Frequency Shift

The maximum Frequency Shift does not exceed -2 to +2 Hz.

11.1.3.B Data Transmission Parameters Type DB

11.1.3.B(1) Signal to C-Notched Noise Ratio

The Signal to C-Notched Noise Ratio is equal to or greater than 30 dB.

11.1.3.B(2) Envelope Delay Distortion

The maximum Envelope Delay Distortion for the frequency bands and route miles specified is:

604 to 2804 Hz

less than 50 route miles	800 microseconds
equal to or greater than 50 route miles	1000 microseconds

1004 to 2404 Hz

less than 50 route miles	320 microseconds
equal to or greater than 50 route miles	500 microseconds

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.1 Switched Access Service (Cont'd)

11.1.3 Data Transmission Parameters (Cont'd)

11.1.3.B Data Transmission Parameters Type DB (Cont'd)

11.1.3.B(3) Impulse Noise Counts

The Impulse Noise Counts exceeding a 67 dBrnC0 threshold in 15 minutes is no more than 15 counts.

11.1.3.B(4) Intermodulation Distortion

The Second Order (R2) and Third Order (R3) Intermodulation Distortion products are equal to or greater than:

Second Order (R2)	31 dB
Third Order (R3)	34 dB

11.1.3.B (5) Phase Jitter

The Phase Jitter over the 4-300 Hz frequency band is less than or equal to 7° peak-to-peak.

11.1.3.B (6) Frequency Shift

The maximum Frequency Shift does not exceed -2 to +2 Hz.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service

This section explains and lists the codes that the customer must specify when ordering Special Access Service, Switched Access Entrance Facilities, and Voice Grade and High Capacity Direct Trunked Transport. These codes provide a standardized means to relate the services being ordered to Special Access Service offerings contained in Section 9. preceding.

When ordering, the type of Special Access Service or Switched Access Entrance Facility or Direct Trunked Transport is described by two code sets, the Network Channel (NC) code and the Network Channel Interface (NCI) codes.

The Network Channel (NC) code consists of two elements. Element one is a Channel Service Code (character positions 1 and 2) that describes the channel service type in an abbreviated form. Element two is an Optional Feature Code (character positions 3 and 4) that identifies option codes available for each channel service code, such as C-conditioning or Improved Return Loss.

The Network Channel Interface (NCI) is used to identify interface specifications associated with a particular channel. This code describes the total wires, protocol, impedance, protocol options and transmission level point(s) reflecting physical and electrical characteristics between the Telephone Company and the customer.

On the following 3 pages are examples which explain the specific characters of the codes and which reference matrices and charts used in developing the codes. Included in the matrices are Service Designator (SD) codes which are used to identify variations of service within service types (e.g., TG1 = Telegraph). The SD and NC codes are displayed as components of the matrices designated as Technical Specifications packages in (A) through (G) following. Through the use of these matrices, SD codes may be converted to NC codes for service ordering purposes.

A chart is also provided in 11.2.2A following which contains information necessary to develop NCI codes.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

Comprehensive lists of allowed Network Channel (NC) and Network Channel Interface (NCI) codes are contained in Special Report SR-STC-000307. However, not all services contained in this Special Report may be offered by the Telephone Company at this time.

Lastly, 11.2.2C following provides a list of compatible Network Channel Interfaces inasmuch as the Network Channel Interfaces associated with a given service need not always be the same, but all must be compatible.

Example No. 1: If the customer wishes to order a 4-wire Voice Grade circuit with 600 Ohms impedance, capable of data transmission, and with improved return loss, the customer might specify the following:

<u>NC</u>	<u>NCI</u>	<u>SECNCI</u>
LG-R	04DB2	04DA2-S

NC Code:

LG = Voice Grade Channel Service, VG6
-R = Improved Return Loss

NCI Code:

04 = Number of physical wires at CDP
DB = Data stream in VF frequency band at the customer designated main terminal location
2 = 600 Ohms impedance

SECNCI (Secondary NCI Code):

04 = Number of physical wires at CDP
DA = Data stream in VG frequency at the customer designated secondary terminal location
2 = 600 Ohms impedance
S = Sealing current option for 4-wire transmission

In the above example the NCI (Network Channel Interface) code is the interface requested at the customer's POT (Point of Termination) and the SECNCI (Secondary Network Channel Interface) code represents the interface at the end office serving the End User.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

Example No. 2: If the customer wishes to order a FX circuit to a station, with 600 Ohms impedance, loop start signaling, which is 4-wire at the CDP and 2-wire at the end-user, the customer might specify:

<u>NC</u>	<u>NCI</u>	<u>SECNCI</u>
LC--	04LO2	02LS2

NC Code:

LC = Voice Grade Channel Service, VG2
-- = No Optional Features

NCI Code:

04 = Number of physical wires at CDP
LO = Loop start, loop signaling - open end
2 = 600 Ohms impedance

SECNCI (Secondary NCI Code):

02 = Number of physical wires at CDP
LS = Loop start signaling - closed end
2 = 600 Ohms impedance

Example No. 3: If the customer wishes to order a 1.544 Mbps Hi-cap facility with no channel options such as CO multiplexing, the customer might specify the following:

<u>NC</u>	<u>NCI</u>	<u>SECNCI</u>
HC--	04DS9-15	04DS9-15

NC Code:

HC = High Capacity Channel Service, HC1
-- = No Optional Features

NCI, SECNCI Code:

04 = Number of physical wires at CDP
DS = Digital hierarchy interface
9 = 100 Ohms impedance
15 = 1.544 Mbps (DS1) format

The preceding three examples use information contained in Special Report SR-STIS-000307.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.1 Network Channel (NC) Codes

In order to determine the NC code appropriate for the service to be ordered, the type of Special Access Service the customer wishes must be identified. This identification is accomplished by a Service Designator (SD) code. The broad categories of Service Designator codes (e.g., VG, MT, TG, etc.) are set forth in Section 9. preceding. Variations within service type (e.g., VG1, MTC, TG2, etc.) are described in the various Technical Publications cited in 11.2.1.A through 11.2.1.G following.

Having determined the specific service type to be ordered and its SD code, and having used the appropriate Technical Publication, the customer should match the SD code to the NC code using the following matrices. Once the NC code has been determined, the Network Channel Interface (NCI) code may be developed using the information set forth in 11.2.2 following and the guidelines concerning specific parameters available for each service type as set forth in the specified Technical Publication.

11.2.1.A Technical Specifications Packages Metallic Service

SD Code NC Code	Package			
	<u>MTC*</u> MO	<u>MT1</u> NT	<u>MT2</u> NU	<u>MT3</u> NV
Parameter				
DC Resistance Between Conductors	X	X	X	
Loop Resistance	X			X
Shunt Capacitance	X			X
<u>Optional Features and Functions</u>				
Three Premises Bridging	X	X		X
Series Bridging	X		X	

The technical specifications are described in Technical Reference TR-NPL-000336.

* All parameters are available within ranges selected by the customer where technically feasible.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.1 Network Channel (NC) Codes (Cont'd)

11.2.1.B Technical Specifications Packages Telegraph Grade Service

	SD Code NC Code	Package		
		<u>TGC*</u> NO	<u>TG2</u> NW	<u>TG2</u> NY
Parameter				
Telegraph Distortion		X	X	X
<u>Optional Features and Functions</u>				
Telegraph Bridging		X	X	X

The technical specifications are described in Technical Reference
TR-NPL-000336.

* All parameters are available within ranges selected by the customer where technically feasible.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.1 Network Channel (NC) Codes (Cont'd)

11.2.1.C Technical Specifications Packages Voice Grade Service

SDCode NCCode	C* LQ	1 LB	2 LC	3 LD	4 LE	5 LF	6 LG	7 LH	8 LJ	9 LK	10 LN	11 LP	12 LR	W
Parameter														
Attenuation Distortion	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C-Message Noise	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Echo Control	X	X	X	X		X		X	X			X	X	X
Envelope Delay Distortion	X						X	X	X	X	X	X	X	X
Frequency Shift	X						X	X	X	X	X	X	X	X
Impulse Noise	X					X	X	X	X	X	X	X	X	X
Intermodulation Distortion	X						X	X	X	X	X	X		X
Loss Deviation	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Phase Hits, Gain Hits, and Dropouts	X													
Phase Jitter	X						X	X	X	X	X	X		X
Signal-to-C Message Noise					X									
Signal-to-C Notch Noise	X					X	X	X	X	X	X	X	X	X

The technical specifications for these parameters (except for dropouts, phase hits, and gain hits) are described in Technical References GR-334-CORE and TR-TSY-000335. The technical specifications for dropouts, phase hits, and gain hits are described in Technical Reference PUB 41004, Table 4.

* The desired parameters are selected by the customer from the list of available parameters.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.1 Network Channel (NC) Codes (Cont'd)

11.2.1.C Technical Specifications Packages Voice Grade Service (Cont'd)

SDCode NCCode	Package VG-												W	
	C* LQ	1 LB	2 LC	3 LD	4 LE	5 LF	6 LG	7 LH	8 LJ	9 LK	10 LN	11 LP		12 LR
<u>Optional Features and Functions</u>														
Central Office Bridging Capability	X		X			X	X				X	X	X	
Central Office Multiplexing	X						X							
Conditioning:														
– C-Type	X					X	X	X	X	X	X			
– Improved Attenuation Distortion	X					X	X	X	X	X	X			
– Improved Envelope Delay Distortion	X					X	X	X	X	X	X			
– Sealing Current	X						X							
– Data Capability	X						X	X			X			
– Telephoto Capability	X											X		
Customer Specified														
Premises Receive Level	X		X	X				X	X	X				
Improved Return Loss for Effective Four-Wire Transmission	X	X	X	X	X	X	X	X	X	X	X	X	X	X
For Effective Two-Wire Transmission	X		X	X				X						
Improved Two-Wire Voice Transmission PPSN														
Interface Arrangement	X									X				
Selective Signaling Arrangement	X		X			X	X				X	X	X	
Signaling Capability	X	X	X	X				X	X	X				
Transfer Arrangement	X	X	X	X	X	X	X	X	X	X	X	X	X	

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.1 Network Channel (NC) Codes (Cont'd)

11.2.1.D Technical Specifications Packages Program Audio Service

	SD Code NC Code	Package				
		<u>APC*</u> PQ	<u>AP1</u> PE	<u>AP2</u> PF	<u>AP3</u> PJ	<u>AP4</u> PK
<u>Parameter</u>						
Actual Measured Loss		X	X	X	X	X
Amplitude Tracking		X				
Crosstalk		X	X	X	X	X
Distortion Tracking		X				
Gain/Frequency Distortion		X	X	X	X	X
Group Delay		X				
Noise		X	X	X	X	X
Phrase Tracking		X				
Short-Term Gain Stability		X				
Short-Term Loss		X				
Total Distortion		X	X	X	X	X
<u>Optional Features and Functions</u>						
Central Office Bridging Capability		X	X	X	X	X
Gain Conditioning		X	X	X	X	X
Stereo		X				X

The technical specifications are described in Technical Reference TR-NPL-000337 and associated Addendum.

* The desired parameters are selected by the customer from the list of available parameters.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.1 Network Channel (NC) Codes (Cont'd)

11.2.1.E Technical Specifications Packages Video Service

	SD Code NC Code	Package		
		<u>TVC*</u>	<u>TV1</u>	<u>TV2</u>
		TQ	TV	TW
<u>Video Parameters</u>				
Insertion Gain		X	X	X
Field-Time Distortion		X	X	X
Line-Time Distortion		X	X	X
Short-Time Distortion		X	X	X
Chrominance-Luminance Gain				
Inequality		X	X	X
Chrominance-Luminance Delay				
Inequality		X	X	X
Amplitude/Frequency				
Characteristic		X	X	X
Luminance Non-Linear Distortion		X	X	X
Chrominance Non-Linear Gain				
Distortion		X	X	X
Chrominance Non-Linear Phase				
Distortion		X	X	X
Transient Synchronizing Signal				
Non-Linearty		X	X	X
Dynamic Gain Distortion				
– Picture Signal		X	X	X
– Synchronizing Signal		X	X	X
Differential Gain		X	X	X
Differential Phase		X	X	X
Chrominance-Luminance				
Intermodulation		X	X	X

* The desired parameters are selected by the customer from the list of available parameters.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.1 Network Channel (NC) Codes (Cont'd)

11.2.1.E Technical Specifications Packages Video Service (Cont'd)

	SD Code NC Code	Package		
		<u>TVC*</u> TQ	<u>TV1</u> TV	<u>TV2</u> TW
<u>Audio Channel Parameters</u>				
<u>Associated with Video Service</u>				
Insertion Gain		X	X	X
Amplitude/Frequency Characteristic		X	X	X
Total Harmonic Distortion & Noise		X	X	X
Maximum Steady-State Test Levels		X	X	X
Gain Differential Between Channels		X	X	
Phase Differential Between Channels		X	X	
Crosstalk		X	X	X
Audio-To-Video Time Differential		X	X	X

The technical specifications are described in Technical Reference TR-NPL-000338.

* The desired parameters are selected by the customer from the list of available parameters.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.1 Network Channel (NC) Codes (Cont'd)

11.2.1.F Technical Specifications Packages Digital Data Service

SD Code NC Code	Package					
	<u>DA1</u> XA	<u>DA2</u> XB	<u>DA3</u> XG	<u>DA4</u> XH	<u>DA5</u> XE	<u>DA6</u> YN
<u>Parameter/Hubbed</u>						
Error-Free Seconds	X	X	X	X	X	X
<u>Optional Features and Functions/Hubbed</u>						
Central Office Bridging Capability	X	X	X	X	X	X
PPSN Interface Transfer Arrangement	X	X	X	X	X	X
Transfer Arrangement	X	X	X	X	X	X

The Telephone Company will provide a channel capable of meeting a monthly average performance equal to or greater than 99.875% error-free seconds (if provided through a Digital Data hub) while the channel is in service, if it is measured through a CSU equivalent which is designed, manufactured, and maintained to conform with the specifications contained in Technical Reference PUB 62310.

Optional Features and Functions/Non-Hubbed

Public Packet Data Arrangement		X	X
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Voltages which are compatible with Digital Data Service are delineated in Technical Reference TR-NWT-000341.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.1 Network Channel (NC) Codes (Cont'd)

11.2.1.G Technical Specifications Packages High Capacity Service

SD Code NC Code	Package					
	<u>HC0</u>	<u>HC1</u>	<u>HC1</u> <u>C</u> <u>HD</u>	<u>HC2</u>	<u>HC3</u>	<u>HC4</u>
<u>Parameters</u>						
Error-Free Seconds		X				
<u>Optional Features and Functions</u>						
Automatic Loop Transfer		X				
Central Office Multiplexing:						
DS4 to DS1						X
DS3 to DS1					X	
DS2 to DS1				X		
DS1C to DS1			X			
DS1 to Voice		X				
DS1 to DS0		X				
DS0 to Subrate*	X					
Transfer Arrangement		X				
Clear Channel Capability		X				

A channel with technical specifications package HC1 will be capable of an error-free second performance of 98.75% over a continuous 24 hour period as measured at the 1.544 Mbps rate through a CSU equivalent which is designed, manufactured, and maintained to conform with the specifications contained in Technical Reference PUB 62411.

* Available only on a channel of 1.544 Mbps facility to a Telephone Company Hub.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.2 Network Channel Interface (NCI) Codes

The electrical interface with the Telephone Company for Special Access Services, is defined by an interface code. There are interface codes for both the customer designated premises and the point of termination. Three examples of NCI codes are found in 11.2 preceding.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.2 Network Channel Interface (NCI) Codes (Cont'd)

11.2.2.A Parameter Codes and Options

Parameter

<u>Code</u>	<u>Option</u>	<u>Definition</u>
AB		accepts 20 Hz ringing signal at customer's point of termination
AC		accepts 20 Hz ringing signal at customer's end user's point of termination
AH		analog high capacity interface
	B	60 kHz to 108 kHz (12 channels)
	C	312 kHz to 552 kHz (60 channels)
	D	564 kHz to 3084 kHz (600 channels)
CT		Centrex Tie Trunk Termination
CS		digital hierarchy interface at Digital Cross Connect System (DCS)
	15	1.544 Mbps (DS1) ANSI Extended Superframe (ESF) Format and B8ZS Clear Channel Capability
	15A	1.544 Mbps (DS1) Superframe (SF) format
	15B	1.544 Mbps (DS1) Superframe (SF) format and B8ZS Clear Channel Capability
	15K	1.544 Mbps (DS1) Extended Superframe (ESF)
DA		data stream in VF frequency band at customer's end user's point of termination
DB		data stream in VF frequency band at customer's point of termination
	10	VF for TG1 and TG2
	43	VF for 43 Telegraph Carrier type signals, TG1 and TG2

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.2 Network Channel Interface (NCI) Codes (Cont'd)

11.2.2.A Parameter Codes and Options (Cont'd)

Parameter

<u>Code</u>	<u>Option</u>	<u>Definition</u>
DC		direct current or voltage
	1	monitoring interface with series RC combination (McCulloh format)
	2	Telephone Company energized alarm channel
	3	Metallic facilities (DC continuity) for direct current/low frequency control signals or slow speed data (30 baud)
DD		DATAPHONE Select-A-Station (and TABS) interface at customer's point of termination
DE		DATAPHONE Select-A-Station (and TABS) interface at the customer's end user's point of termination
DS		digital hierarchy interface
	15	1.544 Mbps (DS1) format per PUB 62411 plus D4
	15E	8-bit PCM encoded in one 64 kbps of the DS1 signal
	15F	8-bit PCM encoded in two 64 kbps of the DS1 signal
	15G	8-bit PCM encoded in three 64 kbps of the DS1 signal
	15H	14/11-bit PCM encoded in six 64 kbps of the DS1 signal
	15J	1.544 Mbps format per PUB 62411
	15K	1.544 Mbps format per PUB 62411 plus extended framing format
	15L	1.544 Mbps (DS1) with SF signaling
	27	274.176 Mbps (DS4)
	27L	274.176 Mbps (DS4) with SF signaling
	31	3.152 Mbps (DS1C)
	31L	3.152 Mbps (DS1C) with SF signaling
	44	44.736 Mbps (DS3)
	44L	44.736 Mbps (DS3) with SF signaling
	63	6.312 Mbps (DS2)
	63L	6.312 Mbps (DS2) with SF signaling

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.2 Network Channel Interface (NCI) Codes (Cont'd)

11.2.2.A Parameter Codes and Options (Cont'd)

Parameter (Cont'd)

<u>Code</u>	<u>Option</u>	<u>Definition</u>
DU		digital access interface
	24	2.4 kbps
	48	4.8 kbps
	19	19.2 kbps
	56	56.0 kbps
	96	9.6 kbps
	64	64.0 kbps
	A	1.544 Mbps format per PUB 62411
	B	1.544 Mbps format per PUB 62411 plus D4
	C	1.544 Mbps format per PUB 62411 plus extended framing format
	1KN	1.544 Mbps ANSI Extended Superframe (ESF) Format without line power
	1SN	1.544 Mbps ANSI Extended Superframe (ESF) Format with B8ZS Clear Channel Capability and without line power
	AN	1.544 Mbps free-framing format without line power (only avail. to U.S. Govt. agencies)
	BN	1.544 Mbps Superframe (SF) Format without line power
	DN	1.544 Mbps Superframe (SF) Format with B8ZS Clear Channel Capability without line power
DX		duplex signaling interface at customer's point of termination
DY		duplex signaling interface at customer's end user's point of termination

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.2 Network Channel Interface (NCI) Codes (Cont'd)

11.2.2.A Parameter Codes and Options (Cont'd) Parameter (Cont'd)

<u>Code</u>	<u>Option</u>	<u>Definition</u>
EA	E	Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead.
EA	M	Type I E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead.
EB	E	Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on E Lead.
EB	M	Type II E&M Lead Signaling. Customer at POT or customer's end user at POT originates on M Lead.
EC		Type III E&M signaling at customer POT
EX	A	tandem channel unit signaling for loop start or ground start and customer supplies open end (dial tone, etc.) functions.
EX	B	tandem channel unit signaling for loop start or ground start and customer supplies closed end (dial pulsing, etc.) functions.
FC		Fiber Optic Interface
	B	OC3, OC3c
	D	OC12
GO		ground start loop signaling - open end function by customer or customer's end user
GS		ground start loop signaling - closed end function by customer or customer's end user
IA		E.I.A. (25 pin RS-232)
LA		end user loop start loop signaling - Type A OPS registered port open end
LB		end user loop start loop signaling - Type B OPS registered port open end

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.2 Network Channel Interface (NCI) Codes (Cont'd)

11.2.2.A Parameter Codes and Options (Cont'd)

Parameter (Cont'd)

<u>Code</u>	<u>Option</u>	<u>Definition</u>
LC		end user loop start loop signaling - Type C OPS registered port open end
LO		loop start loop signaling - open end function by customer or customer's end user
LR		20 Hz automatic ringdown interface at customer with Telephone Company provided PLAR
LS		loop start loop signaling - closed end function by customer or customer's end user
NO		no signaling interface, transmission only
PG		program transmission - no dc signaling
	1	nominal frequency from 50 to 15000 Hz
	3	nominal frequency from 200 to 3500 Hz
	5	nominal frequency from 100 to 5000 Hz
	8	nominal frequency from 50 to 8000 Hz
PR		protective relaying*
RV	0	reverse battery signaling, one way operation, originate by customer
	T	reverse battery signaling, one way operation, terminate function by customer or customer's end user
SF		single frequency signaling with VF band at either customer POT or customer's end user POT
SO		SONET Optical
	AB	Long Range Multilongitudinal Mode (LR1-MLM) Bidirectional Ring
	AU	LR1-MLM Unidirectional Ring
	BB	Long Range Single Longitudinal Mode (LR1-SLM) Bidirectional Ring

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.2 Network Channel Interface (NCI) Codes (Cont'd)

11.2.2.A Parameter Codes and Options (Cont'd)

Parameter (Cont'd)

<u>Code</u>	<u>Option</u>	<u>Definition</u>
SO (Cont'd)		
	BU	LR1-SLM Unidirectional Ring
	CB	Intermediate Range Multilongitudinal Mode (IR1-MLM) Bidirectional Ring
I	CU	IR1-MLM Unidirectional Ring
	DB	Intermediate Range Single Longitudinal Mode(IR1-SLM) Bidirectional Ring
	DU	IR1-SLM Unidirectional Ring
	EB	Short Range Multilongitudinal Mode Light Emitting Diode (SR- MLM/LED) Bidirectional Ring
	ET	SR-MLM Unidirectional Ring
	EU	SR-MLM/LED Unidirectional Ring
	FB	Short Range Multilongitudinal Mode (SR-MLM) Bidirectional Ring
ST		Synchronous Transmission Signal (STS)
	A	STS1
TF		telephotograph interface
TT		telegraph/teletypewriter interface at either customer POT or customer's end user POT
	2	20.0 milliamperes
	3	3.0 milliamperes
	6	62.5 milliamperes
TV		television interface
	1	combined (diplexed) video and one audio signal
	2	combined (diplexed) video and two audio signals
	5	video plus one (or two) audio 5 kHz signal(s) or one (or two) two wire
	15	video plus one (or two) audio 15 kHz signal(s)

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.2 Network Channel Interface (NCI) Codes (Cont'd)

11.2.2.B Impedance

The nominal reference impedance with which the channel will be terminated for the purpose of evaluating transmission performance:

<u>Value (ohms)</u>	<u>Code(s)</u>
110	0
150	1
600	2
900	3+
135	5
75	6
124	7
Variable	8
100	9
Fiber	F
Radio	R

- + For those interface codes with a 4-wire transmission path at the customer designated POT, rather than a standard 900 ohm impedance the code (3) denotes a customer provided transmission equipment termination. Such terminations were provided to customers in accordance with the F.C.C. Docket No. 20099 Settlement Agreement.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.2 Network Channel Interface (NCI) Codes (Cont'd)

11.2.2.C Compatible Network Channel Interfaces

The following tables show the Network Channel Interface codes (NCIs) which are compatible:

11.2.2.C(1) Metallic

Compatible CIs

2DC8-1 2DC8-2

2DC8-3 2DC8-3

4DS8- 2DC8-1

4DS8- 2DC8-2

11.2.2.C(2) Telegraph Grade

Compatible CIs

2DB2-10 10IA8
 2TT2-2
 4TT2-2

2DB2-43* 10IA8
 2TT2-2
 2TT2-6
 4TT2-2

2TT2-2 2TT2-2

2TT2-3 2TT2-2
 4TT2-2

2TT2-6 2TT2-6
 4TT2-6

Compatible CIs

4DB2-10 10IA8
 2TT2-2
 4TT2-2

4DB2-43* 10IA8
 2TT2-6
 4TT2-2

4DS8- 10IA8
 2TT2-2
 2TT2-6
 4TT2-2
 4TT2-6

4TT2-2 4TT2-2

4TT2-6 2TT2-6

* Supplemental Channel Assignment information required.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.2 Network Channel Interface (NCI) Codes (Cont'd)

11.2.2.C Compatible Network Channel Interfaces (Cont'd)

11.2.2.C(3) Voice Grade

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
2AB2	2AC2	2DB2	2DA2	2LR2	2LR2
2AB3	2AC2	2DB3	2DA2	2LR3	2LR2
2CT3	2DY2	2DX3	2LA2	2LS	2GS
	4DS8		2LB2		2LS
	4DX2		2LC2	4GS	
	4DX3		2LO3	4LS	
	4DY2		2LS2		
	4EA2-E		2LS3	2LS2	2LA2
	4EA2-M				2LB2
	4SF2	2GO2		2GS2	2LC2
	4SF3		2GS3		
	6DX2			2LS3	2LA2
	6DY2	2GO3	2GS2		2LB2
	6DY3		2GS3		2LC2
	6EA2-E				
	6EA2-M	2GS	2GS	2NO2	2DA2
	6EB2-E		2LS		2NO2
	6EB2-M		4GS		
	6EB3-E		4LS	2NO3	2NO2
	8EB2-E				2PR2
	8EB2-M	2L02	2LS2		
	8EC2		2LS3	2TF3	2TF2
	9DY2				
	9DY3	2L03	2LS2		
	9EA2		2LS3		
	9EA3				

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.2 Network Channel Interface (NCI) Codes (Cont'd)

11.2.2.C Compatible Network Channel Interfaces (Cont'd)

11.2.2.C.(3) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>	<u>Compatible CIs</u>
4AB2	2AC2 4AB2 4AC2 4SF2		
4AB3	2AC2 4AC2 4SF2		
4AC2	2AC2 4AC2		
		4DS8-	2AC2 2DA2 2DY2 2GO2 2GO3 2GS2 2GS3 2LA2 2LB2 2LC2 2LO2 2LO3 2LR2 2LS2 2LS3 2NO2 2PR2 2RV2-T 2TF2 4AC2 4DA2 4DE2 4DX2 4DX3 4DY2 4EA2-E 4EA2-M
4DA2	4DA2		4DS8- 4DG2 4LR2 4LS2 4NO2 4PR2 4RV2-T 4SF2 4SF3 4TF2 6DA2 6DY2 6DY3 6EA2-E 6EA2-M 6EB2-E 6EB2-M 6GS2 6LS2 8EB2-E 8EB2-M 9DY2 9DY3 9EA2 9EA3
4DB2	2DA2 2NO2 2PR2 4DA2 4DB2 4NO2 4PR2 6DA2		
4DD3	2DE2 4DE2		

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.2 Network Channel Interface (NCI) Codes (Cont'd)

11.2.2.C Compatible Network Channel Interfaces (Cont'd)

11.2.2.C.(3) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4DX2	2DY2	4DX2	8EB2-E	4DX3	6DY2
	2LA2		8EB2-M		6DY3
	2LB2		9DY2		6EA2-E
	2LC2		9DY3		6EA2-M
	2LO3		9EA2		6EB2-E
	2LS2		9EA3		6EB2-M
	2LS3				6LS2
	2RV2-T	4DX3	2DY2		8EB2-E
	4DX2		2LA2		8EB2-M
	4DY2		2LB2		9DY2
	4EA2-E		2LC2		9DY3
	4EA2-M		2LO3		9EA2
	4LS2		2LS2		9EA3
	4RV2-T		2LS3		
	4SF2		2RV2-T	4DY2	2DY2
	4SF3		4DX2		4DY2
	6DY2		4DX3		
	6DY3		4DY2		
	6EA2-E		4EA2-E		
	6EA2-M		4EA2-M		
	6EB2-E		4LS2		
	6EB2-M		4RV2-T		
	6LS2		4SF2		
			4SF3		

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.2 Network Channel Interface (NCI) Codes (Cont'd)

11.2.2.C Compatible Network Channel Interfaces (Cont'd)

11.2.2.C.(3) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4EA2-E	2DY2	4EA3-E	2DY2	4GO2	2GO2
	4DY2		4DY2		2GO3
	4EA2-E		4EA2-E		2GS2
	4EA2-M		4EA2-M		2GS3
	4SF2		4SF2		4GS2
	6DY2		6DY2		4SF2
	6DY3		6DY3		6GS2
	6EB2-E		6EA2-E		
	6EB2-M		6EA2-M	4GO3	2GO2
	8EB2-E		6EB2-E		2GS2
	8EB2-M		6EB2-M		2GS3
	9DY2		8EB2-E		4GS2
	9DY3		8EB2-M		4SF2
			9DY2		6GS2
4EA2-M	2DY2		9DY3		
	4DY2		9EA2		
	4EA2-M		9EA3	4GS	2GS
	4SF2				2LS
	6DY2				4GS
	DY3				4LS
	6EB2-E				
	6EB2-M				
	8EB2-E				
	8EB2-M				
	9DY2				
	9DY3				

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.2 Network Channel Interface (NCI) Codes (Cont'd)

11.2.2.C Compatible Network Channel Interfaces (Cont'd)

11.2.2.C.(3) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4LO2	2LS2	4LS3	2LA2	4SF2	2LO3
	2LS3		2LB2		2LR2
	4LS2		2LC2		2LS2
	4SF2		2LO2		2LS3
	6LS2		2LO3		2RV2-T
4LO3			4SF2		4AC2
	2LS2	4NO2			4DY2
	2LS3		2DA2		4LS2
	4LS2		2DE2		4RV2-T
	4SF2		2NO2		4SF2
4LR2	6LS2		4DA2		6DY2
			4DE2		6DY3
	2LR2		4NO2		6GS2
	4LR2		6DA2		9DY2
	4SF2				9DY3
4LR3		4RV2-0	2RV2-T	4SF3	2DY2
	2LR2		4RV2-T		2GO3
	4LR2		4SF2		2GS2
4LS	4SF2				2GS3
	2GS	4SF2	2AC2		2LA2
	2LS		2DY2		2LB2
	4GS		2GS2		2LC2
	4LS		2GS3		2LO3
4LS2			2LA2		2LR2
	2LA2		2LB2		
	2LB2		2LC2		
	2LC2				
	2LO2				
	2LO3				

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.2 Network Channel Interface (NCI) Codes (Cont'd)

11.2.2.C Compatible Network Channel Interfaces (Cont'd)

11.2.2.C.(3) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4SF3	2LS2	6DA	4DA2	6DY3	2DY2
	2LS3		6DA2		4DY2
	2RV2-T	6DX2	2DY2		6DY2
	4DY2				6DY3
	4EA2-E	4EA2-E	4DY2	6EA2-E	2AC2
	4EA2-M				
	4GS2	4EA2-M			2DY2
	4LR2				
	4LS2	4SF2	6DY2		2LA2
	4RV2-T				2LB2
	4SF2	6EA2-E	6DY3		2LC2
	4SF3				2LO3
	6DY2	6EA2-M	6EB2-E		2LS2
	6DY3				2LS3
	6EB2-E	6EB2-M	8EB2-E		2RV2-T
	6EB2-M				4AC2
	6GS2	8EB2-M	9DY2		4DY2
	6LS2				4EA2-E
	9DY2	9DY3	9EA2		4EA2-M
	9DY3				4LS2
	9EA2	9EA3	6DY2		4RV2-T
	9EA3				4SF2
4TF2	2TF2	6DY2	2DY2		4SF3
					6DY2
					6DY3
	4TF2		6DY2		6EA2-E
					6EA2-M

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.2 Network Channel Interface (NCI) Codes (Cont'd)

11.2.2.C Compatible Network Channel Interfaces (Cont'd)

11.2.2.C.(3) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
6EA2-E	6EB2-E	6EA2-M	6DY2	6EB3-E	2DY2
	6EB2-M		6DY3		4DY2
	6LS2		6EA2-M		4EA2-E
	8EB2-E		6EB2-E		4EA2-M
	8EB2-M		6EB2-M		4SF2
	9DY2		6LS2		6DY2
	9DY3		8EB2-E		6DY3
			8EB2-M		6EA2-E
6EA2-M	2AC2		9DY2		6EA2-M
	2DY2		9DY3		8EB2-E
	2LA2				8EB2-M
	2LB2	6EB2-E	2DY2		9DY2
	2LC2		4DY2		9DY3
	2LO3		4SF2		9EA2
	2LS2		6DY2		9EA3
	2LS3		6DY3		
	2RV2-T		6EB2-E	6EX2-A	2GS2
	4AC2		6EB2-M		2GS3
	4DY2		9DY2		2LS2
	4EA2-E		9DY3		2LS3
	4EA2-M				4GS2
	4LS2	6EB2-M	2DY2		4LS2
	4RV2-T		4DY2		4SF2
	4SF2		4SF2		6GS2
	4SF3		6DY2		6LS2
			6DY3		
			6EB2-M		
			9DY2		
			9DY3		

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.2 Network Channel Interface (NCI) Codes (Cont'd)

11.2.2.C Compatible Network Channel Interfaces (Cont'd)

11.2.2.C.(3) Voice Grade (Cont'd)

	<u>Compatible CIs</u>	<u>Compatible CIs</u>	<u>Compatible CIs</u>
6EX2-B	2GO3	8EB2-E	2AC2
	2LA2		2DY2
	2LB2		2LA2
	2LC2		2LB2
	2LO2		2LC2
	2LO3		2LO3
	2LR2		2LS2
	4LR2		2LS3
	4SF2	2RV2-T	2RV2-T
		4AC2	4AC2
6GO2	2GO2	4DY2	4DY2
	2GS2	4LS2	4LS2
	2GS3	4RV2-T	4RV2-T
	4GS2	4SF2	4SF2
	4SF2	4SF3	4SF3
	6GS2	6DY2	6DY2
		6DY3	6DY3
6LO2	2LS2	6EB2-E	6EB2-E
	2LS3	6EB2-M	6EB2-M
	4LS2	6LS2	6LS2
	4SF2	8EB2-E	8EB2-M
	6LS2	8EB2-M	9DY2
		9DY2	9DY3
6LS2	2LA2	9DY3	
	2LB2		
	2LC2		
	2LO2		
	2LO3		
	4SF2		

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.2 Network Channel Interface (NCI) Codes (Cont'd)

11.2.2.C Compatible Network Channel Interfaces (Cont'd)

11.2.2.C.(3) Voice Grade (Cont'd)

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
8EC2	2DY2	9DY2	2DY2	9EA3	2DY2
	4DY2		4DY2		4DY2
	4EA2-E		6DY2		4EA2-E
	4EA2-M		6DY3		4EA2-M
	4SF2		9DY2		6DY2
	6DY2				6DY3
	6DY3	9DY3	2DY2		6EA2-E
	6EA2-E		4DY2		6EA2-M
	6EA2-M		6DY2		6EB2-E
	6EB2-E		6DY3		6EB2-M
	6EB2-M		9DY2		8EB2-E
	8EB2-E		9DY3		8EB2-M
	8EB2-M				9DY2
	9DY2	9EA2	2DY2		9DY3
	9DY3		4DY2		9EA3
	9EA2		4EA2-E		
	9EA3		4EA2-M		
			6DY2		
			6DY3		
			6EA2-E		
			6EA2-M		
			6EB2-E		
			6EB2-M		
			8EB2-E		
			8EB2-M		
			9DY2		
			9DY3		
			9EA2		
			9EA3		

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.2 Network Channel Interface (NCI) Codes (Cont'd)

11.2.2.C Compatible Network Channel Interfaces (Cont'd)

11.2.2.C.(4) Program Audio

<u>Compatible CIs</u>		<u>Compatible CIs</u>	
2PG2-1	2PG1-1 2PG2-1	4DS8-15E	2PG1-3 2PG2-3
2PG2-3	2PG1-3 2PG2-3	4DS8-15F	2PG1-5 2PG2-5
2PG2-5	2PG1-5 2PG2-5	4DS8-15G	2PG1-8 2PG2-8
2PG2-8	2PG1-8 2PG2-8	4DA8-15H	2PG1-1 2PG2-1

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.2 Network Channel Interface (NCI) Codes (Cont'd)

11.2.2.C Compatible Network Channel Interfaces (Cont'd)

11.2.2.C.(5) Video

<u>Compatible CIs</u>		<u>Compatible CIs</u>	
2TV6-1	4TV6-15 4TV7-15	4TV7-5	4TV6-5 4TV7-5
2TV6-2	6TV6-15 6TV7-15	4TV7-15	4TV6-15 4TV7-15
2TV7-1	4TV6-15 4TV7-15	6TV6-5	6TV6-5 6TV7-5
2TV7-2	6TV6-15 6TV7-15	6TV6-15	6TV6-15 6TV7-15
4TV6-5	4TV6-5 4TV7-5	6TV7-5	6TV6-5 6TV7-5
4TV6-15	4TV6-15 4TV7-15	6TV7-15	6TV6-15 6TV7-15

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.2 Network Channel Interface (NCI) Codes (Cont'd)

11.2.2.C Compatible Network Channel Interfaces (Cont'd)

11.2.2.C.(6) Digital Data

<u>Compatible CIs</u>		<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4DS8-15	4DS8-15+	4DU5-24	4DU5-24	6DU5-24	6DU5-24
	4DU5-24				
	4DU5-48	4DU5-48	4DU5-48	6DU5-48	6DU5-48
	4DU5-56				
	4DU5-96	4DU5-96	4DU5-96	6DU5-56	6DU5-56
	6DU5-24				
	6DU5-48	4DU8-56	4DU5-56	6DU5-96	6DU5-96
	6DU5-96				

+ Available only as a cross connect of two digital channels at appropriate digital speeds at a Telephone Company hub.

ACCESS SERVICE

11. ACCESS SERVICE INTERFACES AND TRANSMISSION SPECIFICATIONS (Cont'd)

11.2 Special Access Service (Cont'd)

11.2.2 Network Channel Interface (NCI) Codes (Cont'd)

11.2.2.C Compatible Network Channel Interfaces (Cont'd)

11.2.2.C.(7) High Capacity

<u>Compatible CIs</u>		<u>Compatible CIs</u>	
4DS0-63	4DS0-63 4DU8-A,B or C 6DU8-A,B or C	4DS8-15J	4DU8-A 6DU8-A
4DS6-27	4DS6-27 4DU8-A,B or C 6DU8-A,B or C	4DS8-15K	4DU8-B 4DU8-C 6DU8-B 6DU8-C
4DS6-44	4DS6-44 4DU8-A,B or C 6DU8-A,B or C	4DS8-31	4DS8-31 4DU8-A,B or C 6DU8-A,B or C
4DS8-15	4DS8-15+ 4DU8-B 6DU8-8	4DU8-A,B or C	4DU8-A,B or C

+ Available only as a cross connect of two individual channels of 1.544 Mbps facilities at a Telephone Company hub.

ACCESS SERVICE

12. RATES AND CHARGES

12.1 Access Ordering

	<u>Charge</u>
12.1.1 <u>Access Order Charge</u> Per Order	\$110.00
12.1.2 <u>Service Date Change Charge*</u> A Service Date Change Charge will apply, on a per order per occurrence basis, for each service date changed. The applicable charge is: Service Date Change Charge, per order	\$32.00
12.1.3 <u>Design Change Charge*</u> The Design Change Charge will apply on a per order per occurrence basis, for each order requiring design change. The applicable charge is: Design Change Charge, per order	\$32.00
12.1.4 <u>Expedited Order Charge</u>	\$330.00
12.1.5 <u>Cancellation Charge</u>	\$32.00
12.1.6 <u>Miscellaneous Service Order Charge</u> Per Occurrence	\$32.00

* Additional labor charges may apply for engineering, installation, repair, testing and maintenance. The respective hourly charges are based on the company's current labor rates.

ACCESS SERVICE

12. RATES AND CHARGES (Cont'd)

12.2 Switched Access Service

12.2.1 Local Transport

Monthly
Rate

12.2.1.A Entrance Facility (per termination)

- Voice Grade Two-Wire	\$ 27.63
- Voice Grade Four-Wire	\$ 44.23
- High Capacity DS1 1 st System	\$ 371.10
- High Capacity DS1 Ea. Add. System	\$ 164.93
- High Capacity DS3 1st ¼ mile	\$1,337.16
- High Capacity DS3 Ea. Add. ¼ mile	\$ 21.93

12.2.1.B Network Blocking Per Blocked Call

Applies to FGD only	\$0.017
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12.2.1.C Direct Trunked Transport Termination

- High Capacity DS1	\$ 49.48
- High Capacity DS3	\$ 438.91

12.2.1.D Direct Trunked Transport Facility (per mile)

- Voiceband	\$ 8.23
- High Capacity DS1	\$ 10.89
- High Capacity DS3	\$ 110.72

12.2.1.E Multiplexing

- DS1 to Voice	\$ 226.56
- DS3 to DS1	\$ 382.04

12.2.1.F Tandem Switched Transport Facility

- Per Access Minute , per mile	\$.00002420
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12.2.1.G Tandem Switched Transport Termination

- Per Access Minute , per termination	\$.00024970
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12.2.1.H Tandem Switching

- Per Access Minute	\$.00085180
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ACCESS SERVICE

12. RATES AND CHARGES (Cont'd)

12.2 Switched Access Service (Cont'd)

12.2.2 End Office

Rate

12.2.2.A.(1) Local Switching – Originating

- Per Access Minute \$.0136517

12.2.2.A.(2) Local Switching – Terminating

- Per Access Minute

beginning July 1, 2014	\$.0024035	(Z)
beginning July 1, 2015	\$.0016109	(Z)
beginning July 1, 2016	\$.0007000	
beginning July 3, 2017	\$.0000000	

12.2.2.B 800 Data Base Query

- Per originating 800 query \$.0067

12.2.3 Nonrecurring Charges

Rate

12.2.3.A Entrance Facility (per Entrance Facility)

- Voice Grade	\$137.84
- High Capacity DS1 1 st System	\$785.58
- High Capacity DS1 Ea. Add. System	\$113.47
- High Capacity DS3 1 st ¼ Mile	\$785.58
- High Capacity DS3 Ea. Add. ¼ Mile	\$ 26.18

12.2.3.B Interim NXX Translation Per ASR, Per End Office

- First NXX	\$ 23.00
- Each Additional NXX	\$ 12.00

12.2.3.C FGD Conversion of Multifrequency Address Signaling to SS7 Signaling or SS7 Signaling to Multifrequency Address Signaling

Per 24 Trunks Converted or Fraction thereof on a Per Order Basis	\$242.00
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12.2.3.D Multiplexing

- DS1 to Voice	\$751.22
- DS3 to DS1	\$392.79

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ACCESS SERVICE

12. RATES AND CHARGES (Cont'd)

12.2 Switched Access Service (Cont'd)

12.2.4 Common Channel Signaling Network Connection

12.2.4.A Signaling Network Access Link

	<u>Rate</u>	<u>Nonrecurring Charge</u>
- Signaling Mileage Facility per mile	\$ 5.83	
- Signaling Mileage Termination per Termination	\$ 58.52	
- Signaling Entrance Facility Per Facility	\$ 75.64	\$176.00

12.2.4.B STP Port

	<u>Rate</u>
- Per port	\$886.00

12.3 Reserved for Future Use

12.4 Reserved for Future Use

12.5 Reserved for Future Use

ACCESS SERVICE

12. RATES AND CHARGES (Cont'd)

12.6 Special Access Service

12.6.1 Surcharge for Special Access Service

This tariff does not contemplate a surcharge for Special Access Service.

ACCESS SERVICE

12. RATES AND CHARGES (Cont'd)

12.6 Special Access Service (Cont'd)

12.6.2 Metallic Service

		Monthly <u>Rate</u>	Nonrecurring <u>Charge</u>
12.6.2.A	Channel Termination Per Termination	\$20.44	\$112.94
12.6.2.B	Channel Mileage		
	Channel Mileage Facility Per Mile	\$31.81	
	Channel Mileage Termination Per Termination	\$2.21	
12.6.2.C	Bridging		
	Three Premises Bridging Per Port	\$4.81	
	Series Bridging Per Port	\$4.81	

ACCESS SERVICE

12. RATES AND CHARGES (Cont'd)

12.6 Special Access Service (Cont'd)

12.6.3 Telegraph Grade Service

		Monthly <u>Rate</u>	Nonrecurring <u>Charge</u>
12.6.3.A	Channel Termination Per Termination		
	Two-Wire	\$9.81	\$112.94
	Four-Wire	\$14.13	\$112.94
12.6.3.B	Channel Mileage		
	Channel Mileage Facility Per Mile	\$1.70	
	Channel Mileage Termination Per Termination	\$14.67	
12.6.3.C	Telegraph Bridging Per Port		
	Two-Wire	\$2.31	
	Four-Wire	\$2.31	

ACCESS SERVICE

12. RATES AND CHARGES (Cont'd)

12.6 Special Access Service (Cont'd)

12.6.4 Voice Grade Service

		<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
12.6.4.A	Channel Termination Per Termination		
	Two-Wire	\$21.39	\$205.26
	Four-Wire	\$30.82	\$205.26
12.6.4.B	Channel Mileage		
	Channel Mileage Facility Per Mile	\$1.89	
	Channel Mileage Termination Per Termination	\$17.00	
12.6.4.C.	<u>Optional Features and Functions</u>		<u>Monthly Rate</u>
	12.6.4.C.(1) <u>Bridging</u>		
	(a) <u>Voice Bridging</u> Per Port		
	Two-Wire		\$2.66
	Four-Wire		\$2.66
	(b) <u>Data Bridging</u> Per Port		
	Two-Wire		\$4.81
	Four-Wire		\$4.81
	(c) <u>Telephoto Bridging</u> Per Port		
	Two-Wire		\$4.81
	Four-Wire		\$4.81

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ACCESS SERVICE

12. RATES AND CHARGES (Cont'd)

12.6 Special Access Service (Cont'd)

12.6.4 Voice Grade Service (Cont'd)

Monthly
Rate

12.6.4.C. Optional Features and Functions (Cont'd)

12.6.4.C.(1) Bridging (Cont'd)

(d)	<u>DATAPHONE Select-A-Station Bridging</u>	
	Sequential Arrangement, Ports Per channel connected	
	Two-Wire	\$19.89
	Four-Wire	\$105.50
	Addressable Arrangement, Ports Per channel connected	
	Two-Wire	\$21.29
	Four-Wire	\$108.38

ACCESS SERVICE

12. RATES AND CHARGES (Cont'd)

12.6 Special Access Service (Cont'd)

12.6.4 Voice Grade Service (Cont'd)

Monthly
Rate

12.6.4.C. Optional Features and Functions (Cont'd)

12.6.4.C.(1) Bridging (Cont'd)

(e)	<u>Telemetry and Alarm Bridging</u>	
	Active Bridging Channel Connections Per channel connected	
	Split Band	\$7.97
	Summation	\$3.11
	Passive Bridging Channel Connections Per channel connected	\$0.22

12.6.4.C.(2) Conditioning Per Termination

C Type	\$2.40
Improved Attenuation Distortion	None
Improved Envelope Delay Distortion	None
Data Capability	\$3.32
Telephoto Capability	\$3.88
Sealing Current	None

12.6.4.C.(3) Improved Return Loss for Effective
Two-Wire or Four-Wire Transmission
Per Termination

Two Wire	\$4.32
Four-Wire	\$4.32

12.6.4.C.(4) Customer Specified Receive Level
per two-wire termination

\$1.56

ACCESS SERVICE

12. RATES AND CHARGES (Cont'd)

12.6 Special Access Service (Cont'd)

12.6.4 Voice Grade Service (Cont'd)

	Monthly Rate
12.6.4.C. <u>Optional Features and Functions</u> (Cont'd)	
12.6.4.C.(5) <u>Multiplexing Per arrangement</u> <u>Voice to Telegraph Grade</u>	\$97.32
12.6.4.C.(6) <u>Signaling Capability</u> <u>Per termination</u>	\$10.09
12.6.4.C.(7) <u>Selective Signaling Arrangement</u> <u>Per arrangement</u>	\$2.80
12.6.4.C.(8) <u>Transfer Arrangement</u> (key activated or dial up)	
Per four port arrangement including control channel termination	\$1.35
Per five port arrangement including control channel termination	\$3.07
12.6.4.C.(9) <u>Public Packet Switching Network</u> (PPSN) Interface Arrangement Per arrangement	ICB

ACCESS SERVICE

12. RATES AND CHARGES (Cont'd)

12.6 Special Access Service (Cont'd)

12.6.5 Program Audio Service

Monthly Rate	Daily Rate	<u>Nonrecurring Charge</u>	
		<u>Monthly</u>	<u>Daily</u>

12.6.5.A Channel Termination
Per Termination

200 to 3500 Hz	\$26.50	\$2.65	\$229.46	\$229.46
100 to 5000 Hz	19.13	1.91	229.46	229.46
50 to 8000 Hz	19.13	1.91	229.46	229.46
50 to 15000 Hz	19.13	1.91	229.46	229.46

12.6.5.B Channel Mileage

	<u>Monthly Rate</u>	<u>Daily Rate</u>
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12.6.5.B.(1) Channel Mileage Facility
Per Mile

200 to 3500 Hz	\$ 1.75	\$0.18
100 to 5000 Hz	2.54	0.25
50 to 8000 Hz	3.81	0.38
50 to 15000 Hz	5.09	0.51

12.6.5.B.(2) Channel Mileage Termination
Per Termination

200 to 3500 Hz	\$ 14.67	\$ 1.47
100 to 5000 Hz	25.51	2.55
50 to 8000 Hz	38.26	3.83
50 to 15000 Hz	51.02	5.10

12.6.5.C Optional Features and Functions

12.6.5.C.(1) Bridging, Distribution Amplifier Per Port	\$17.90	\$1.79
12.6.5.C.(2) Gain Conditioning per service	\$11.02	\$1.10
12.6.5.C.(3) Stereo per service	\$18.03	\$1.80

ACCESS SERVICE

12. RATES AND CHARGES (Cont'd)

12.6 Special Access Service (Cont'd)

12.6.6 Video Service

	<u>Monthly Rate</u>	<u>Daily Rate</u>	<u>Nonrecurring Charge</u>	
			<u>Monthly</u>	<u>Daily</u>
12.6.6.A <u>Channel Termination</u> Per Termination				
TV-1 or 2	\$329.56	\$181.26	\$310.00	\$310.00
4TV-5	321.52	176.84	310.00	310.00
6TV-5	341.65	187.91	310.00	310.00
TV-15	354.62	195.04	310.00	310.00
12.6.6.B <u>Channel Mileage</u>			<u>Monthly Rate</u>	<u>Daily Rate</u>
12.6.6.B.(1) Channel Mileage Facility Per Mile				
All			\$301.84	\$166.01
12.6.6.B.(2) Channel Mileage Termination Per Termination				
All			\$321.49	\$176.82

ACCESS SERVICE

12. RATES AND CHARGES (Cont'd)

12.6 Special Access Service (Cont'd)

12.6.7 Digital Data Service

	<u>Monthly Rate</u>	<u>Nonrecurring Charge</u>
12.6.7.A <u>Channel Termination</u> Per Termination		
2.4 kbps	\$37.76	\$231.25
4.8 kbps	37.76	231.25
9.6 kbps	37.76	231.25
56.0 kbps	37.76	231.25
12.6.7.B <u>Channel Mileage</u>		
12.6.7.B.(1) Channel Mileage Facility Per Mile		
2.4 kbps	\$1.95	
4.8 kbps	1.95	
9.6 kbps	1.95	
56.0 kbps	1.95	
12.6.7.B.(2) Channel Mileage Termination Per Termination		
2.4 kbps	\$16.48	
4.8 kbps	16.48	
9.6 kbps	16.48	
56.0 kbps	26.57	
12.6.7.C <u>Optional Features and Functions</u>		
12.6.7.C.(1) Bridging Per port		\$4.81
12.6.7.C.(2) Loop Transfer Arrangement Per four port arrangement Key activated or Dial-Up		\$5.57
12.6.7.C.(3) Public Packet Switching Network Interface Arrangement		
Per 9.6 kbps arrangement		ICB
Per 56.0 kbps arrangement		ICB

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ACCESS SERVICE

12. RATES AND CHARGES (Cont'd)

12.6 Special Access Service (Cont'd)

12.6.8 High Capacity Service

Monthly <u>Rate</u>	Nonrecurring <u>Charge</u>
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**12.6.8.A Channel Termination
Per Termination**

1.544 Mbps	\$106.07	\$368.39
3.152 Mbps	ICB	ICB
6.312 Mbps	ICB	ICB
44.736 Mbps	1,018.27	805.00
274.176 Mbps	ICB	ICB

12.6.8.B Channel Mileage

Monthly <u>Rate</u>

**12.6.8.B.(1) Channel Mileage Facility
Per Mile**

64 kbps	\$1.95
1.544 Mbps	13.38
3.152 Mbps	ICB
6.312 Mbps	ICB
44.736 Mbps	128.45
274.176 Mbps	ICB

**12.6.8.B.(2) Channel Mileage Termination
Per Termination**

64 kbps	\$26.57
1.544 Mbps	62.03
3.152 Mbps	ICB
6.312 Mbps	ICB
44.736 Mbps	512.50
2714.176 Mbps	ICB

ACCESS SERVICE

12. RATES AND CHARGES (Cont'd)

12.6 Special Access Service (Cont'd)

12.6.8 High Capacity Service (Cont'd)

12.6.8.C Optional Features and Functions

12.6.8.C.(1) Multiplexing, per arrangement

DS4 to DS1	ICB
DS3 to DS1	\$322.46
DS2 to DS1	ICB
DS1C to DS1	ICB
DS1 to Voice	\$92.73
DS1 to DSO	\$98.45
DSO to Subrates	
Up to 20 2.4 kbps services	\$135.23
Up to 10 4.8 kbps services	83.00
Up to 5 9.6 kbps services	72.53

12.6.8.C.(2) Automatic Loop Transfer
Per arrangement \$363.19

12.6.8.C.(3) Transfer Arrangement (key-activated or dial-up)
Per four port arrangement including
control channel termination \$154.35

ACCESS SERVICE

12. RATES AND CHARGES (Cont'd)

12.6 Special Access Service (Cont'd)

12.6.9 Individual Case Filings

Reserved for future use.

ACCESS SERVICE

12. RATES AND CHARGES (Cont'd)

12.7 Maximum Rate Schedule

The following provides a list of maximum rates applicable to all rate elements in this section in compliance with the flexible regulation for CLECs prescribed in PSC Order 98-165:

Rate Element	Maximum Rate
<u>Ordering Charges (Non-Recurring):</u>	
Access Order Charge	\$ 200.00
Service Date Change Charge	\$ 200.00
Design Change Charge	\$ 200.00
Expedited Order Charge	\$ 400.00
Cancellation Charge	\$ 200.00
Miscellaneous Order Change	\$ 200.00
<u>Switched Access Charges (Monthly Rate):</u>	
EF – 2W VG	\$ 49.95
EF – 4W VG	\$ 69.95
EF – DS1 1 st System	\$ 495.95
EF – DS1 Additional System, each	\$ 295.95
EF – DS3 1 st ¼ mile	\$2595.95
EF – DS3 each additional mile	\$ 39.95
Network Blocking per Blocked Call	\$.04
DTT Termination – VG	\$ 39.95
DTT Termination – DS1	\$ 99.95
DTT Termination – DS3	\$ 899.95
DTT Facility (per mile) – VG	\$ 9.95
DTT Facility (per mile) – DS1	\$ 29.95
DTT Facility (per mile) – DS3	\$ 299.95
Multiplexing DS1 to Voice	\$ 249.95
Multiplexing DS3 to DS1	\$ 449.95
TST Facility (per mile)	\$ 0.0002
TST Termination	\$ 0.001
Tandem Switching	\$ 0.01
Local Switching	\$ 0.015
800 DB Query	\$ 0.01
Common Channel Signaling Network Link – Facility	\$ 9.95
Common Channel Signaling Network Link – Termination	\$ 79.95
Common Channel Signaling Network Link – EF	\$ 99.95
STP Port	\$1200.00

ACCESS SERVICE

12. RATES AND CHARGES (Cont'd)

12.7 Maximum Rate Schedule (Cont'd)

Switched Access Non-Recurring Charges

EF – VG	\$ 400.00
EF – DS1 1 st System	\$1000.00
EF – DS1 Additional System, each	\$ 500.00
EF – DS3 1 st ¼ mile	\$1000.00
EF – DS3 each additional mile	\$ 50.00
Interim NXX Translation – First	\$ 50.00
Interim NXX Translation – Additional	\$ 25.00
FGD Conversion MF to SS7, or vice versa	\$ 500.00
Multiplexing DS1 to Voice	\$1000.00
Multiplexing DS3 to DS1	\$ 500.00
Common Channel Signaling Network Link, per facility	\$ 495.00

Special Access Recurring Charge

Metallic Service CT	\$ 39.95
Metallic Service CMF	\$ 9.95
Metallic Service CMT	\$ 69.95
Metallic Service Bridging	\$ 9.95
Telegraph Grade Service CT 2W	\$ 39.95
Telegraph Grade Service CT 4W	\$ 49.95
Telegraph Grade Service CMF	\$ 9.95
Telegraph Grade Service CMT	\$ 34.95
Telegraph Grade Service Bridging	\$ 9.95
Voice Grade Service CT 2W	\$ 49.95
Voice Grade Service CT 4W	\$ 69.95
Voice Grade Service CMF	\$ 9.95
Voice Grade Service CMT	\$ 39.95
Voice Grade Service Bridging (Voice,Data,Telephoto)	\$ 9.95
Voice Grade Service Bridging (Sequential 2W)	\$ 39.95
Voice Grade Service Bridging (Sequential 4W)	\$ 199.95
Voice Grade Service Bridging (Telemetry & Alarm)	\$ 19.95
Voice Grade Service Bridging (Telemetry & Alarm Passive)	\$ 9.95
Voice Grade Service Conditioning, all	\$ 9.95
Voice Grade Service Improved Return Loss 2W/4W	\$ 9.95
Voice Grade Service Customer Specified Level	\$ 9.95
Voice Grade Service Multiplexing	\$ 149.95
Voice Grade Service Signaling/Termination	\$ 19.95
Voice Grade Service Selective Signaling/Arrangement	\$ 19.95
Voice Grade Service Transfer Arrangement	\$ 19.95

ACCESS SERVICE

12. RATES AND CHARGES (Cont'd)

12.7 Maximum Rate Schedule (Cont'd)

Program Audio (all) CT, Monthly Rate	\$ 49.95
Program Audio (all) CT, Daily Rate	\$ 4.95
Program Audio (all) CMF, Monthly Rate	\$ 9.95
Program Audio (all) CMF, Daily Rate	\$.99
Program Audio (all) CMT, Monthly Rate	\$ 99.95
Program Audio (all) CMT, Daily Rate	\$ 9.95
Program Audio Bridging, Monthly Rate	\$ 25.00
Program Audio Bridging, Daily Rate	\$ 2.50
Program Audio Conditioning, Monthly Rate	\$ 19.95
Program Audio Conditioning, Daily Rate	\$ 1.95
Program Audio Stereo, Monthly Rate	\$ 25.95
Program Audio Stereo, Daily Rate	\$ 2.95
Video Service (all) CT, Monthly Rate	\$ 499.95
Video Service (all) CT, Daily Rate	\$ 299.95
Video Service (all) CMF, Monthly Rate	\$ 499.95
Video Service (all) CMF, Daily Rate	\$ 299.95
Video Service (all) CMT, Monthly Rate	\$ 499.95
Video Service (all) CMT, Daily Rate	\$ 299.95
Digital Data Service CT	\$ 79.95
Digital Data Service CMF	\$ 9.95
Digital Data Service CMT	\$ 49.95
Digital Data Bridging	\$ 9.95
Digital Data Loop Transfer	\$ 9.95
High Capacity Service CT – 1.544 mbps	\$ 495.95
High Capacity Service CT – 44.736 mbps	\$ 2595.95
High Capacity Service CMF – 1.544 mbps	\$ 29.95
High Capacity Service CMF – 44.736 mbps	\$ 299.95
High Capacity Service CMT – 1.544 mbps	\$ 99.95
High Capacity Service CMT – 44.736 mbps	\$ 899.95
High Capacity Service Multiplexing DS3 to DS1	\$ 449.95
High Capacity Service Multiplexing DS1 to VG/DS0	\$ 249.95
High Capacity Service Loop Transfer	\$ 499.95
High Capacity Service Transfer Arrangement	\$ 299.95

Special Access Non-Recurring Charge

Metallic Service CT, per Termination	\$ 200.00
Telegraph Grade Service CT, per Termination	\$ 200.00
Voice Grade Service CT, per Termination	\$ 400.00
Program Audio Service CT, per Termination (Monthly or Daily)	\$ 400.00
Video Service CT, per Termination (Monthly or Daily)	\$ 600.00
Digital Data Service CT, per Termination	\$ 400.00
High Capacity Service – 1.544mbps, Per Termination	\$ 600.00
High Capacity Service – 44.736 mbps, Per Termination	\$ 1500.00